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ORIGINAL ARTICLES.

FEMORAL ANEURISM — TREATMENT BY COMPRESSION.

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The treatment of aneurism by compression originated with Bourdelot at the close of the seventeenth century, afterwards used by Geuga, Heister and others. These surgeons made pressure directly upon the sac, and related several cures effected in this way. But this practice soon fell into disuse because of the danger and uncertainty in its results from irritating and inflaming the sac. The French surgeons modified the pressure plan by laying open the sac, clearing out its contents, and applying the pressure directly to the opening into the vessel. In 1785, John Hunter substituted for these barbarous modes of treatment, the Hunterian Operation, one of the greatest advances of modern surgery ever made by the single act of one man.

This operation was the simpler and more scientific procedure of ligating the artery at some distant and healthy portion of the body above the sac. For more than half a century this operation was almost the only method by which this disease was treated when situated upon an artery applicable to the operation. In 1810, Pellatan and Dubois applied pressure to the artery above the sac, instead of to the aneurism itself, and various attempts were made to methodically treat aneurisms in this way.

In 1841-'42, the Dublin surgeons introduced the practice of compression in the treatment of aneurism into modern surgery, and demonstrated by pathological investigation and surgical argument that the coagulation of the blood by

which an aneurismal sac is occluded, may take place as readily when the current of blood from the artery into the sac is interrupted by compression as when it is arrested by ligation of the vessel. They established this great fact, that whenever the artery could be reached so as to admit of compression between the sac and heart, the tying of the vessel was no longer the only hope of cure in this formidable disease. When the practice was first used by the profession, the theory was erroneous; it was supposed that the whole flow of blood through the artery should be arrested and inflammation of the vessel at the point compressed should be secured and that the consolidation of the aneurism depended upon the obstruction of the vessel subsequent to this inflammation. This led to the employment of too violent and forcible compression, causing the patient great pain and often sloughing of the skin.

It is not necessary that the whole of the circulation through the artery be entirely and permanently arrested, but merely be lessened in force and quantity to such extent as is compatible with the deposition of laminated fibrin. Erichsen reports a case of popliteal aneurism operated upon by Sir Charles Bell, in which the femoral artery was double, only one branch being secured the other continuing to supply the tumor; on examination a week later, the patient having died from erysipelas, the tumor was completely consolidated. In some cases consolidation of the contents of

the sac takes place in a few hours, not by the deposition of fibrin but by the coagulation of the contents of the sac. This sudden coagulation, which was at one time dreaded by surgeons, is now considered to be in the highest degree advantageous, as leading to a more rapid and equally sure cure of the aneurism; but is not to be desired in aneurisms situated upon arteries supplying the brain because of the great danger of syncope, or hemiplegia in consequence of a detached portion of this soft clot forming an embolus in one of the cerebral arteries.

Usually the interior of an aneurismal sac contains a quantity of colorless fibrin, arranged in concentric laminæ of moderate thickness. These laminæ of fibrin are of a pale-buff color. The more external were deposited first and occasionally are found to have undergone a kind of fatty degeneration. As the center of the sac is approached they become softer and more colored and in the central portions dark masses of coagulum are often met with. This laminated fibrin, the active clot as termed by Broca, is deposited only when the blood is in motion in the sac of the aneurism, and is usually if not always found in aneurisms of the sacculated variety, because the movement of the blood is necessarily much slower in this variety than in the fusiform, in which the flow of blood is rapid and adhesion of the corpuscles take place with difficulty. The color of the clot varies in different cases; the more rapid the flow the fewer red corpuscles will be found in the coagulum, the slower the flow the darker the clot will be. Complete arrest of the circulation leads to the formation of an ordinary dark clot exactly similar to one formed outside of the body.

This laminated fibrin, which we should always hope to have deposited, is formed in the same way as a colorless thrombus in a diseased vein; the first step in the process being the adhesion of the white corpuscles to the walls of the sac; by the disintegration of these white corpuscles the fibrin ferment is produced which acts upon fibrinogen and fibrinoplastin to form the fibrin in the delicate meshes of which all the elements of the blood are collected, thus forming the clot.

Of the great value of compression in the treatment of aneurism, there can be no doubt, especially when the tumor is

situated in the arteries of the lower extremity. Aneurisms occurring in the vicinity of the trunk are not so applicable to the treatment by compression as those of the extremities, although an aneurism in the groin has been cured by compression of the abdominal aorta. The great value of compression is that if it fail the ligature may be advantageously applied, with in some cases, a better prospect of success than if compression had not previously been tried, the pressure causing the collateral circulation to enlarge, thus lessening the tendency to gangrene. But in a great many cases the difficulties of the operation of ligation are greatly increased by the thickening and infiltration of the sheath of the vessel subsequent to the treatment by compression. Compression may be safely employed in some cases, as when aneurism is complicated with a heart trouble in which the operation of ligation is not advisable. In some few cases neither ligature nor compression can be adopted and amputation is the sole reliance, while in other cases compression, especially in femoral and popliteal aneurisms, is an infinitely safer method of cure.

The duration of the treatment by compression varies very greatly. In some cases the tumor solidifies in a few hours. In other instances the compression has been used for more than three months before a cure resulted. For instrumental compression, according to some statistics, the longest period was seven weeks. The shortest twenty-four hours; the mean of nineteen cases, in which time was recorded, was twelve days.

For digital compression, the longest period was twenty-one days, the shortest four and one-half hours, the mean of thirteen cases five and one-half days. For combined instrumental and digital compression the longest period was six months, the shortest forty-four hours, the mean of twelve cases forty-four and one-third days.

In regard to the duration of treatment much will depend upon the condition of the patient and on the condition of the tumor. Those circumstances favoring the spontaneous cure of the aneurism will also influence the rapidity of the cure by compression. There are certain conditions of the blood in which it is little disposed to coagulate; in such cases the treatment will necessarily be prolonged.

Any constitutional cause or condition by which the impulse of the heart is lessened and the force of the flow of blood through the sac is diminished, as the occurrence of phthisis, will greatly favor the deposition of laminated fibrin and the consolidation of the tumor. It is very remarkable that phthisis is antagonistic to aneurism and may be explained by the fact that the heart's action is feeble in that disease, and that violent muscular exercise is rarely undertaken by those afflicted with it. The effects upon the tumor treated by compression vary considerably, in some cases it rapidly solidifies; generally, however, this is a more gradual process, the tumor becomes more painful and solid with less pulsation and bruit, and usually there is a feeling of restlessness and uneasiness which is best to quiet by opiates. As the pressure continues the tumor hardens, the anastomosing vessels enlarge, with a feeling of burning pain in the limb and arterial pulsations where usually none are felt. After complete solidification of the aneurism has taken place, the pressure should be continued for forty-eight hours to prevent the occurrence of a relapse.

Report of case: Nathan W., colored, age forty-three years; weight near 200 pounds; about six feet high; a planter by occupation; noticed in January, 1891, a small tumor in left groin about the size of an almond. It gave him but little trouble however, and he continued at his work until February of the following year, (1892) when he began sowing and plowing in oats. I might say that the negroes of the South do but little work during the summer and autumn months, except to gather their crops—which is easy work. This long period of idleness, perhaps, explains the slow growth of this tumor. In February, when he began to plant and prepare his land for cultivation, his left leg became so stiff that he could not climb over a fence and was obliged to quit work and to use a cane in walking. About this time he sought the advice of my father, complaining mostly of stiffness of the limb and inability to perform his duty as a farm laborer. My father examined the tumor and felt plainly the pulsations and heard the bruit. Believing that he had in former years cured a popliteal aneurism by the use of ergot he prescribed it in this case, giving

fifteen drops every four or five hours, during the day of the f. e. ergot. After using this remedy for a short while the stiffness of the limb seemed to abate and he was able to walk without the assistance of his cane. In April, owing to a very rapid rise of the river and the overflowing of its banks, he was compelled to make some gigantic efforts, which taxed his strength and endurance to the utmost, to save himself and family from the flood which covered the bottom lands; during this time he was for several hours swimming and wading about in the water and for two days or more he was in a house which was surrounded by water, being much exposed all the while.

After this the tumor began to rapidly enlarge and to pain him a great deal. About this time, May 1st, I was called to see him—my first visit. I found him suffering great pain, his body being convulsed with it, and wet with perspiration. I immediately used morphia and atropia, putting it under the skin, with the success of relieving the pain in a few minutes. I also left morphia to be taken should he have another paroxysm of pain, and continued the use of the ergot. At my next visit, a few days later, I found him in almost the same condition as I did at first, except the pain seemed more like sciatic neuralgia than before. I again used morphia and atropia with the same result as before, and decided to discontinue the use of the ergot and to use the iodide of potassium instead, giving ten-grain doses three times a day. The patient had inherited a scrofulous diathesis from which he had suffered when young. On the sixth of May Dr. J. D. Egger was called in consultation with my father and myself. At this time I was very much in favor of an operation and urged the patient to consent, as I had been doing previously, but he persistently refused. The tumor now occupied the whole of Scarpa's triangle, running up so close to Poupart's ligament that I did not think pressure could be used. The paroxysms of pain seemed to recur regularly, simulating a malarial affection, but quinine did not prevent their return or make them any lighter. The iodide was continued with morphia to relieve pain. At our next consultation, about the middle of May, Dr. Egger proposed to use pressure, and by his ingenuity and workmanship

an instrument was made of a steel spring, shaped like a horse shoe with a wooden block on one end through which worked a thumb-screw with a cork on the end, the cork to direct pressure upon the artery as it crossed the pubes, the only place possible for pressure to be applied. This rude instrument was applied the latter week of May, and seemed to prevent the main inflex of blood. The patient was shown how to manipulate the instrument and directed to keep it on during the day only. The iodide had now produced its physiological effect and was discontinued as he refused to take it longer.

The paroxysms of pain continued to recur during all this time; sometimes two or three paroxysms a day, then other days he was entirely free of them.

After using the instrument about eighteen days he left it off, declaring that he could not use it any longer as it caused him too much pain by irritating the skin. He now consented to an operation and Drs. J. D. Egger and W. S. Green were called, but the aneurism had extended so far as to involve the external iliac, and a successful operation was thought to be impossible. He was again put upon the iodide of potassium with the syrup of the iodide of iron. His leg began to swell

and become very oedematous; pitting on pressure to the toes; the superficial veins became enlarged, resembling whip cords, showing plainly the effect of the pressure upon the returning circulation. He was rapidly becoming addicted to the use of morphia, not less than three or four grains giving him any relief. He was unable to turn himself in bed, and complained of dull, aching, throbbing, burning pains. His appetite was poor, and he developed a cough with expectoration simulating phthisis; was greatly emaciated, his leg being as large or larger than his body. I directed him to use cod liver oil, to be alternated with Fellow's syrup of hypophosphites, and to rub his leg several times a day always in the direction of the heart. In this way his cough diminished, appetite returned, the pains in his leg ceased, the morphia was left off entirely and he seemed to be better in every respect. His leg gradually returned to its normal size, the tumor became very hard and diminished in size, the bruit and pulsation ceased entirely, and now he is walking about his farm on crutches, though perfectly able to walk without them. The only impediment to free locomotion is an inability to perform freely the movements of extension and adduction.

CLINICAL LECTURES.

NOTES ON A CASE OF EXTRA-UTERINE PREGNANCY IN THE PRACTICE OF DR. MORDECAI PRICE.

W. H. LINK, M. D., PETERSBURGH, IND.

Mrs. J. C., February 6th, missed a period. February 18th, had a severe fall followed by hemorrhage from the uterus, with shreds of membrane discharged. This continued up to the day of operation. Twenty-six days after the fall and the appearance of hemorrhage, she was seized with most agonizing pain in the pelvis attended by a constant desire to stool without the ability to do so. Coincidentally there was a marked tendency to faint, while the most startling pallor called attention to her facial expression.

Notwithstanding these emphatic and clearly marked symptoms of tubal preg-

nancy with rupture, which ought to have been understood and appreciated by any professional man of ordinary intelligence, her medical attendant failed to realize her condition. What his diagnosis was could not be fathomed by the treatment instituted. He curetted the uterus, packed the vagina and sent for a large Hodge pessary which he introduced and left *in situ*. This treatment gave such agonizing pain and increased her apparent illness so much, that her doctor was discharged and another called in. He promptly removed the pessary and stated that he did not understand the case. Dr. Price was

then called to see her and found, upon examination, more positive indications of ruptured tubal pregnancy than are usually known to manifest themselves in such a catastrophe.

Physical examination showed a large boggy mass to the left, extending as high as to the crest of the ilium. The uterus pushed high up under the pubis. Douglas' pouch filled with a fluid, fluctuating boggy mass, and the patient was exceedingly feeble with a pulse of a hundred and thirty.

Section was at once suggested by Dr. Price as the only means of saving life.

On the morning of April 4th, the abdomen was opened by a small incision and a quart of clots turned out of the pelvic cavity. The left tube was quickly brought up and tied off. The rupture had occurred at the fimbriated extremity and the placenta was still within the tube which was distended to the size of a small lemon. On the right side there was a large collection of pus in the tube, which was ruptured in the process of enucleation, flooding the pelvis with pus. There were strong, dense, and multiple adhesions to the bowel and ovary. These adhesions were so numerous and so firm that complete obstruction of the bowels had taken place, and the resulting distension added much to the difficulty of the operation. In breaking up the firm adhesions between the bowel and pus sac the peritoneal covering was torn on three knuckles of intestine. These were repaired with carefully placed Lambert sutures. The bowel was replaced after repeated douching, the abdomen thoroughly flushed, a glass drain inserted, the incision closed with silk-worm-gut, a six-tailed bandage applied and the patient put to bed. She rallied promptly and has continued to improve up to date.

There are a number of deductions to be drawn from this case that are worthy of careful consideration.

The array of important symptoms :

She had missed a period. This is a classical symptom that has few exceptions. Pregnancy without the uterus inhibiting menstruation as certainly as if within that viscus, and often leading the patient to the conclusion that she is normally pregnant.

The early period at which rupture occurred. Rupture usually takes place be-

fore the twelfth week, but if much earlier than that, is superinduced by some traumatism, over exertion or emotional disturbance. In her case, rupture was precipitated by the fall.

The hemorrhage from the uterus was characteristic of most of such cases. In some cases of ectopic gestation so much blood is lost *per vaginam* that the mistake is made of considering the case one of uterine abortion.

The shreds of membrane passed with the blood are always sufficient to make the wary practitioner alert in looking for other symptoms.

Ectopic pregnancy is attended by a decidua just as certainly as though nature had been stimulated by the presence of the ovum in its normal receptacle. At the time of either rupture or tubal abortion this decidua is cast off and expelled as shreds or membrane, and attended usually with uterine hemorrhage as in abortion following normal pregnancy.

The agonizing pain which at once made itself felt upon rupture, is one of the most certain symptoms found in accidents of this kind. It is caused by the flow of blood and the expulsion of clots and the foetus or its envelopes into the peritoneal cavity. A circumscribed peritonitis is at once ushered in and nature begins the attempt to fence in the dangerous material.

The constant rectal tenesmus was another finger-board pointing in the same general direction of ruptured ectopic pregnancy. The large accumulation of blood and clots pressed upon the rectal nerves and produced the desire to stool, while the mechanical pressure of the blood upon the rectum produced obstruction of the bowel and prevented any relief from the distressing symptoms.

The tendency to faint, which would no doubt soon have become a real syncope, was due to loss of blood and shock. This is one of the most unmistakable symptoms in such conditions, and is often the first alarming occurrence that leads to a physician being called.

The pallor is characteristic and is due to the loss of blood. It is in degree proportioned to the extent of hemorrhage, and must be considered with the group of symptoms both as to diagnosis and prognosis.

The quick, weak, almost thready pulse is a symptom confirmatory of the remain-

der of the group, and is the best indication as to the immediate danger to life of any.

The tinkering treatment she underwent before she fell into the hands of a surgeon, is a fair sample of what ignorance can do when the ass puts on the lion's skin even for a moment. Any man who would curette a uterus with so large a collection of pus as there was on one side of the patient's pelvis, to say nothing of the per-

fect picture presented by the group of symptoms, must either be very ignorant or very much in need of a conscience. That such ignorance could be found in a great medical center like Philadelphia is quite surprising to an observer, and speaks louder than any words for the passage of some sort of medical legislation that will at least lessen the number of incompetents turned loose upon a suffering public.

COMMUNICATIONS.

TWO CASES OF MALIGNANT DIPHThERIA.

FRANK P. BUTLER, M. D., MARSHALLTOWN, IA.

In presenting the following cases, I do so because of their peculiarities and complications, because they are somewhat out of the usual line, and because we were so baffled in our efforts to either diagnose or treat them successfully.

Saturday, April 23rd, 1892, Mrs. B. consulted Dr. Hedges in regard to her son, *et.* two and a half years. Dr. Hedges found him suffering from a slight indigestion and prescribed accordingly. Sunday, 24th, the boy was suddenly seized with severe convulsions. Dr. Hedges being out of town, another physician was summoned. He found the child unconscious, but after a few moment's work had him sleeping comfortably. The glands of the throat were enlarged, the temperature was evidently rising rapidly, but owing to the child's condition the doctor did not deem it advisable to disturb him with the thermometer, so the exact temperature was not known. At eight p. m. of the same day Dr. Hedges was summoned. He found the glands very much enlarged; temperature 104° F; the lungs in a state of engorgement, showing plainly that he had to deal with acute double pneumonitis; the head was very hot and the face flushed.

Monday, 25th, the glands still enlarged, the lungs evidently crepitant though they were passing into the stage of red hepatization.

Tuesday, 26th, hepatization nearly complete; the breath was very fetid, gangrenous in odor, so much so that the nurse in bending over him to attend to his

wants, covered her mouth and nose with her handkerchief. The hepatization became complete at seven o'clock Wednesday morning, when he died.

At 10.30 on the morning of the 27th, (the morning the boy died) I was hastily summoned to see his sister, aged four years. I found her intensely nervous, bordering on convulsions; the throat was very much swollen both inside and out; the inside red and tumified. I looked for a membrane but failed to discover one; temperature 103° F. in axilla only one hour after she was taken sick.

As her case was so much like her brother's (of which we were very much in doubt as to our diagnosis), I proposed a post mortem upon the latter, and at three p. m., eight hours after death, assisted by Drs. Lewis and Hedges, I first made an incision into the trachea, but found nothing abnormal in its entire length. Both lungs were in a state of complete hepatization and upon cutting the surface, there was seen to escape a viscid, turbid, reddish fluid, the substance of the lungs breaking down readily under the pressure of the fingers. Upon opening the pericardium we found a large effusion, probably one pint. A thorough examination of the heart revealed nothing abnormal. The liver was much enlarged from congestion.

In the jejunum and ileum were found five intussusceptions, incomplete and with no inflammatory products. The bowels moved regularly during his sickness.

Peyer's patches were found enlarged and congested, but our efforts to find an ulcer were in vain.

To say that we were disappointed with the result of our examination but mildly expresses it. We all anticipated more evidences of diphtheria, for owing to the child's anæmic appearance, the peculiar gangrenous breath, the sudden illness of the sister in the same manner, the evidences of septic influence in both, we certainly expected to find a membrane, pus or something besides the pneumonia that would account for the above conditions. Of course the pneumonia was in itself sufficient to cause death, but whence the other symptoms?

After the examination of the boy we naturally directed our attention and efforts more especially to the little girl's lungs, and by Saturday the congestion had passed off in resolution. She was bright and cheerful all day Saturday, and we considered her convalescent up to five o'clock p. m. Then she again became restless, the glands again enlarging, but there was no membrane visible, the breath assumed the same odor as the boy's, though not so intense. Sunday she grew constantly worse and, late in the afternoon,

there appeared upon the left fauces a patch of diphtheritic membrane about the size of a quarter of a dollar. She gradually failed and died at twelve o'clock Sunday night.

We carefully examined the premises. The cellar was in good condition, dry and clean. The well, about twenty feet from the house, was forty-five feet deep and contained forty feet of water. It had been cleaned out about a year ago. The privy vault is about one hundred feet from the well, and is in poor condition, open and very shallow, the ground sloping from the well to the vault. They have a pet house dog that is healthy. No cats. Had seen but one rat about the house, and that only a few days prior to the children's sickness. The father had some hundred or more chickens, all healthy. They keep their own cow, she is fat and healthy.

The treatment consisted of acetanilid; quinine; digitalis in large doses; listerine, locally and internally; peroxide of hydrogen by atomizer; calomel; iron; and poultices of flax seed meal applied to the chest and throat. The parents have a babe three months old, who up to the present time remains perfectly healthy.

THE TREATMENT OF HEMORRHOIDS.

JAS. E. PRYOR, M. D., LOGANSPOUT, IND.

There is no class of diseases more important, falling into the hands of the general practitioner, and for which he should be better prepared to treat than diseases of the rectum.

Within the past few years much practical attention has been devoted to the subject and much has been said and written on this annoying branch of surgical disease.

The frequency with which we are called upon to relieve those suffering from this troublesome affection, behooves us to well acquaint ourselves with the different modes of affording relief. Many of these patients have tried all sorts of "salves" and "pile remedies." The word *operation* is a "bug-bear" to them; they are timid and discouraged, anxious for relief, and finally fall into the hands of the gen-

eral practitioner, and he who can cure them, not only relieves a troublesome disease, but adds laurels to his fame.

Without going into the pathology, or any lengthy discussion as to the different varieties of hemorrhoids, or the methods of treatment, I shall merely give an outline of the results of my own thought and experience with a method which I have used successfully during the past three years.

Much has been said and written for and against using injections of carbolic acid in hemorrhoids, but I believe by using proper judgment and care almost any hemorrhoid that is a distinct internal growth can be successfully met by injection, and with a minimum of danger. But I would especially caution against using injections of too great strength, or mak-

ing too many injections at one time. It is better that we do too little than too much. A little extra zealousness or misapplied judgment will cause the patient more inconvenience than his ailment.

When a patient comes for relief from this affection, I do not accept his own statements, but make a thorough examination, both digital and ocular, before making a diagnosis. Having found out the size and extent of the trouble I prepare for treatment. I direct him to go home, have the bowels moved freely, and order a large enema of soap-suds and water to be taken just before coming to my office.

Having placed my patient in proper position, I ask him to strain so as to bring the tumors down in view, then with a clean hypodermic syringe I inject one drop or minim of pure carbolic acid in the center of each pile and then replace

it. If the patient is in good condition, I do not hesitate to inject two or three at one time, but generally, it is better for him to present himself at proper intervals until all are injected. After injection I have him put to bed for a week. If there is much pain, it is controlled by an anodyne suppository, or small doses of morphine. After two or three days the bowels are opened freely.

The tumors will atrophy or shrivel up. Only in rare and aggravated cases will a tumor require a second injection; usually the pain is of little account, and in course of three weeks the patient will go about as usual.

With proper judgment and care there are but few cases that cannot be entirely cured by this treatment. I have never had any dangerous complication whatever, occur since I began using it.

SOCIETY REPORTS.

THE CLINICAL SOCIETY OF LOUISVILLE.

Stated Meeting of March 21st, 1893.

RUPTURE OF PELVIC ABSCESS; SUDDEN DEATH.

DR. W. H. H. WATHEN: On last Tuesday afternoon, I was called in consultation to see a woman, forty-five years of age, a widow, with several grown children, who was suffering with some distension of the abdomen; with pulse 80; temperature normal. Her temperature the day preceding was 102 F.; pulse a little accelerated. The history of the case, as far as I could get it from her physician, was about as follows: The patient had suffered occasionally with pain in the abdomen, not well located, perhaps a year before. She was comparatively well after that until a week before I saw her; then, at the menstrual period, she exposed herself during cold weather, and began to suffer severe pain in the abdomen, mostly in the appendicular region, and diarrhoea began which continued two days. An opiate was given to stop it; then her abdomen began distending and became tympanitic in every part; least tympanites just above the symphysis

pubis and on the right side in the region of the appendix, with no special tenderness except in this region. Her bowels ceased to move, I think, about the time I saw her, and she passed very little gas after that; temperature and pulse remaining normal. No vomiting, except of substances which she took into the stomach; no odor from the vomited material and very little discoloration of it. She was a large woman, was unable to get out of bed, and was rather indifferent to everything that surrounded her. An examination *per vaginam*, showed that the uterus and all pelvic structures were matted together, the hardness being more pronounced on the right side. No accurate diagnosis could be made, but the symptoms indicated appendicitis more than anything else. It was decided to operate on her on Friday morning at nine o'clock. Thursday evening at ten o'clock her pulse and temperature were still normal. She said she was feeling better. Friday morning at six o'clock she vomited a little water that was taken during the night;

she fell over as though strangling, and in fifteen minutes was dead. After death she passed a small quantity of fecal matter, having passed no gas for several days preceding this. At the request of the family, a *post mortem* was made on Friday at two o'clock, by Dr. Louis Frank—Dr. Wilson, Dr. Pfeifer and myself being present. I will ask Dr. Frank to exhibit the specimens removed.

DISCUSSION.

DR. LOUIS FRANK: On Friday we held the *post mortem* as Dr. Wathen states, and when we first opened the abdomen a clear fluid came out. The thorax was not opened as is usually done. In separating the intestines and reaching the large bowel, we found that there were collections of pus which seemed to be sacculated by adhesions having formed between the contents of the pelvic cavity and the posterior abdominal walls. We found a rather dark formation in the region of the appendix, looking very much like the appendix; however, it proved not to be such, and searching further we found the appendix which was in a perfectly normal condition; consequently we proceeded to examine further for the cause of the trouble. I present here the appendix which has been opened; it shows no evidence of disease or thickening. After having gotten out all of the intestines and finding nothing to account for the trouble, we proceeded to look into the pelvic cavity and found the uterus in a normal position, as were also the left tube and ovary, but in the region where we should have found the right tube we discovered an abscess sac into which the tube had ruptured. The ovary on this side was found to be cystic. The abscess had ruptured into the pelvic cavity, otherwise there was nothing of particular interest to report. I think it is rather an interesting case, and shows how liable we are to make a mistake in diagnosis from abdominal symptoms; how easily we might diagnose appendicitis from the symptoms, when the true nature of the trouble might be pyosalpinx or other pelvic troubles.

DR. W. H. WATHEN: This *post mortem* makes the case a very interesting one; from our general knowledge of symptoms caused by peritonitis and the accumulation of large quantities of pus, we can hardly understand how such destructive conditions could go on without causing

more disturbance, especially of the pulse. Because the pulse, we are taught in our text books, is rapid and wiry in peritonitis, and we come to the conclusion, if we have a pulse relatively normal in its frequency and its volume, that we have not much peritonitis. But it teaches the lesson that we cannot rely upon the symptoms in peritonitis, either local or general, to indicate exactly or even approximately the condition of the peritoneal cavity.

You will find one abdomen distended very largely and you will operate, believing that you will come in contact with large quantities of pus in the peritoneal cavity, diffuse or localized; when the abdomen is opened there will be no pus anywhere, and you will find a little band of peritoneal adhesion constricting the bowel at one point, which is removed and the patient recovers. In another case, where the indications of pus and of peritoneal infection are not so well marked, we find either diffuse peritonitis with the cavity filled with pus, or sacculated accumulations of pus. Another thing that this case teaches is the conservatism of the peritoneal cavity in its effort to resist general infection by pathogenous germs. When this pus tube ruptured, instead of causing, as we would naturally suspect from a large accumulation of virulent pus, general peritonitis, nature hurriedly threw out a protective wall against general infection, and even after this accumulation of pus, as much as a quart or half gallon, it was cut off from the general peritoneal cavity. The peritoneal structures which were not involved in the pus sac were perfectly free from infection. Another thing it teaches is, as Dr. Frank has mentioned, our inability to diagnosticate with any degree of positiveness the origin of these intra-abdominal inflammations, because the symptoms are frequently in one locality, when, possibly, the origin of the trouble is in some other locality. In this case all the well-marked symptoms of pain and tenderness in examining the abdomen were in the appendicular region, and the trouble was found to be of tubular origin. The only evidence that it originated in the tubes was found in examining *per vaginam*; these structures were found to be matted together; but they might have been matted together in appendicitis, because leakage of pus from the appendix could produce peritonitis of the pelvic

structures. Just as in a case that I reported to this Society at its last meeting—all the symptoms complained of by the patient indicated appendicitis, but the *post mortem* proved that the trouble was entirely due to rupture of the gall bladder filled with gall stones. Just as in a case reported some time since by Dr. Dugan, where all the symptoms pointed toward appendicitis, yet when the abdomen was opened it was found the gall bladder had ruptured. So it is utterly impossible to make a positively correct diagnosis in conditions of the abdomen of this character, from the objective and subjective history of the case. Another thing it teaches is that cases of tubular trouble ought to be very carefully looked into, and where a woman suffers from conditions which point to anything of this kind, she should be carefully watched, and operated upon in time to prevent a fatal termination. I believe this woman's life could have been saved had an operation been performed two weeks before she died.

DR. J. G. CECIL: One of the most interesting points to me in connection with this case, is the method of death, as to what really did cause the death of this patient. I would have expected in a case like this, after there had been rupture of an abscess sac, general diffusion of pus throughout the whole abdominal cavity, then a rapid infection of the general peritoneum and death in a few hours, say twenty-four or forty-eight hours. This would have been a perfectly reasonable explanation. But how a woman could die in such a condition as this, without evidence of general infection and in such a short time, is to me entirely inexplicable. I could not suggest the possible method of death in this case. She could not have died of hemorrhage, as there was no blood found; she could not have died of septic poison, as there was no evidence of that; it was not, apparently, death from shock, although that seems to me nearer the correct solution than anything else, because, as I understand, in the *post mortem* no pus was found in the general cavity at all; that as the cavity was opened there existed a small amount of clear serous fluid, which did not show any evidence of general peritonitis. It is a case which teaches a good many lessons. I think probably the cause of death might have been explained if the gentleman had car-

ried the *post mortem* further and opened the cavity of the thorax. I am sorry that the thoracic cavity was not opened and carefully examined.

DR. J. W. IRWIN: It seems to me to be a very unique case for a person to die without any evidence that would point to the cause. It is quite possible, as Dr. Cecil has said, that if the *post mortem* had been extended higher up, the cause might have been explained. I think that the only conclusion that we can come to is that the patient died of shock.

DR. J. B. MARVIN: In perforation from any cause in any cavity of the body, do you not generally have sudden death? Where there is rupture of the gall bladder, of the appendix, gut or tube; or, if you go into the other cavity, rupture into the bronchus or thoracic cavity, of an abscess, do you not, as a rule, have sudden death? How else can you explain these sudden deaths except by shock? The termination is too sudden to be from inflammatory or septic trouble. I think in the case reported there must have been some chronic peritonitis, or serous fluid would not have been found in the cavity, and there would not have been any distension.

DR. LOUIS FRANK: No fluid was found until we got below the umbilicus. Fluid found in the lower pelvic cavity was pure pus. The adhesions in the upper part of the cavity were evidently of recent formation, as they were very easily separated, but in the lower part of the cavity they were very extensive and tough, and very hard to separate. I believe that there was some peritonitis, probably from contiguity of structure, and that the rupture of the tube took place twelve to twenty-four hours before death.

DR. J. G. CECIL: In answer to Dr. Marvin's inquiry: It seems to me it is not always the history, that death takes place suddenly where there is rupture into any of the cavities. I have never seen many deaths from rupture of any kind. I remember to have seen a death from perforation in typhoid fever, which I think occurred in thirty-six hours after rupture, but was preceded by evidences of acute peritonitis, was explained in that way, with pains referred in the ordinary classic directions. Deaths from rupture of the tubes in extra-uterine pregnancy or rupture of pus tubes into

the abdominal cavity, in forty-eight or thirty-six hours are perhaps not unusual, but I take it that a death in fifteen minutes from rupture into any cavity would be very unusual; deaths from gun-shot wounds into the cavity, which would be equivalent to rupture, seldom occur suddenly, unless it be from hemorrhage.

DR. J. B. MARVIN: There must have been some change going on, or it is possible the pus sac would not have dilated. There was inflammation going on without many active symptoms, at the same time there was some lowering of vitality.

DR. ORENDORF: I think death might be explained by the fact that the sudden collapse of the abscess wall in rupture caused the heart to lose its peripheral resistance, and the shock so produced was sufficient to cause death.

DR. W. H. WATHEN: I have really very little to add, more than to say that while there was no general peritonitis, and but little accumulation of pus in the free abdominal cavity, still I was inclined to the opinion at the *post mortem*, that there had been a rupture of the great abscess cavity and I believed that death occurred just after this rupture; and there would not necessarily be any great quantity of pus in the peritoneal cavity. With the structures matted together entirely across above the symphysis pubis it was almost impossible to tell exactly where the opening occurred, because in cutting down, adhesions had to be separated after a fashion that would prevent finding the opening. I am satisfied that there was more pus in the peritoneum than was noted, and in a condition of this character, with weak resisting or inhibitory powers, I think a rupture of this nature might cause death within a very short time by sudden shock.

DR. LOUIS FRANK: I am inclined to think she might have died of shock; this is probably the correct solution.

DR. J. B. MARVIN: In these cases where pus forms, making an abscess sac anywhere in either of the cavities, when it does, eventually, rupture, you are very liable to have sudden death. I do not think these cases should be compared with stab or shot wounds, as stated by Dr. Cecil; where the formation of an abscess has been going on for quite a while, there is a certain amount of toxic infection lowering the resistance and vitality of the patient,

and, under these circumstances, rupture into the cavity is very liable to cause sudden death.

DR. J. G. CECIL: I did not mean to convey the idea that death from rupture of an abscess cavity into the general peritoneal cavity was to be compared in all respects to trauma, that is, an acute condition like gun shot or stab wound, but more particularly to cases of the character I cited—rupture or perforation of typhoid fever, also perforations or ruptures of pus tubes, which are not so infrequent. We very seldom hear the history of cases such as has been given to-night in rupture of pus tubes. It seems to me that the only rational explanation is that the patient referred to by Dr. Wathen, died from shock. The emptying of a large quantity of pus into the general peritoneal cavity might and probably would produce great shock, and in some instances might cause immediate death, but the general observation of cases of this kind is not that of immediate death following rupture.

For instance take cases of appendicitis—we had report of a case of death on the table or shortly afterward, in one of the other medical societies last week, in which, when the cavity was opened it was found to be filled with pus, and the appendix was found ruptured, etc., a condition not dissimilar to the case under discussion. The patient was a chronic alcoholic subject, a man who had been drinking beer and other liquors all his life, and a man who had poor resisting powers. In that case, however, death followed many hours after perforation. That was the idea I had in regard to these cases; that I could not see why rupture of the tube in the case reported to-night, should have caused immediate death, and especially since there is no history of pus in the general peritoneal cavity. A little pus in the cavity might be granted, and yet there was not, according to the report of the autopsy, very much if any, pus found in the general peritoneum. Infection of the abdominal cavity could not have taken place in fifteen minutes, so it is probable, as already stated, that rupture of the tube took place some time before, and the pelvic peritoneum provided against this general infection by shutting it off, a wall or curtain being formed around the great abscess sac in the pelvic cavity, protecting the general peritoneum.

PELVIC CELLULITIS.

DR. J. W. IRWIN: The discussion of this case alarms me, and it occurs to my mind just now that I must be making a great mistake, or I may be eventually going to kill a young lady—I say kill because if I am neglecting a case I would be responsible for her death. About four weeks ago I was called to attend a young lady, seventeen years of age, who had just menstruated. Menstruation had been normal, but afterward she was taken with violent pains about the womb, extending clear across the pelvis and about half way up to the umbilicus, and there was a considerable feeling of weight in the thighs extending down the inner sides to the knees. The patient was not nervous, and a history of nervous disease in the family was wanting. There was a hectic flush on her cheeks and considerable fever; temperature in the morning about 100° F., going up in the evening to 103° F. This condition of things had existed for five or six days. There was no discharge from the vagina, and no evidence that suppression of the menstrual function had occurred prematurely, the history being that she had menstruated for five or six days. Under the old regime we called those cases, so far as I can make out, “pelvic cellulitis.” The question arose in my mind as to whether I should call in an abdominal surgeon, have the abdomen opened and the modern treatment applied, or institute the old proceedings of expectancy, so to speak, for the relief of this condition. The patient is now very much better, yet there is a good deal of soreness and stiffness in the lower part of the abdomen, and tenderness under pressure. There is no history of a gonorrhoeal nature that I can discover without making an examination *per vaginam*, which I have not done, as the virginity of the patient is beyond question; consequently infection of this character is not to be considered. Her general condition seems to be improved, though tenderness still exists. She turns on the bed very badly, and when she does she has some pain, but when she remains quiet there is not much pain. There is no evidence of pus formation that I have been able to discover, and if there is pus in the abdomen, I have no idea how it could have gotten there. I believe the case will go on now to recovery as far as recovery can be had in a case of

this kind. But I am at a loss to know what brought about this trouble, unless we denominate it, as we formerly did, a catarrhal condition, not due to suppuration or infection of any kind. I would like to hear the opinion of the abdominal surgeons present, as to the proper management of a case of this kind, whether it would be better to submit a patient of this age with this sort of history to abdominal section, or to treat her on the old plan, which we have often done and which has often, so far as we know, cured these cases for years and until they have become mothers and subsequently have shown no signs of disease.

DISCUSSION.

DR. W. H. WATHEN: I wish to congratulate Dr. Irwin upon the treatment of the case reported without surgical interference. Such cases nearly always recover from the immediate effects without any operation. This trouble, from the entire history of the case and the history of the immediate attack, is acute. Her tubes, ovaries and uterus were undoubtedly previously in a healthy condition, and because of exposure of some sort, this local trouble began. While bacteria of some form are the prime factors in causing infection of the tubes and of the peritoneum, there may be other causes such as exposure during the menstrual period bringing on intense congestion, or traumatic injuries; but granting that it was infectious in its origin, there is no necessity for operation because the trouble is not sufficiently advanced to cause pus, and pus does not accumulate in tubes in this length of time; there might be salpingitis and some local pelvic peritonitis without an accumulation of pus; that would be an after result coming on in weeks, or months, sometimes in years. By the pathological processes familiar to abdominal surgeons, the tube becomes obstructed at the outer extremity and finally at its inner extremity, the accumulation of pus thus becoming accreted. But this woman may have had no pelvic peritonitis, because salpingitis of an acute character might bring on all the pain with which she suffered, and the elevation of temperature and acceleration of pulse described by Dr. Irwin. I believe that this patient will recover without an operation at any time, and shall be surprised if in the future there is any accumulation of pus in

the tubes, or sufficient adhesions of the pelvic peritoneum to cause enough disease to justify a laparotomy.

DR. J. G. CECIL: I heartily agree with what Dr. Wathen has said in regard to there being no occasion for surgical interference in this case. I believe the line of treatment pursued by Dr. Irwin is the one which is generally recognized as being correct and proper. I might ask if there is not a possibility of gonorrhœal infection?

DR. LOUIS FRANK: I believe in all these cases there is a possibility of accidental infection. I do not mean by this infection from coitus, but there is danger of infection from one member of the family to another, and this has recently been illustrated in an article written by a German investigator in the *Centralblatt für Bact. und Parasiten-Kunde*. In this article there are quite a number of cases reported of children, ranging from four to fourteen years of age, every one of which suffered from vaginitis. An examination proved that in every case the gonococci were found. It was finally ascertained that infection had occurred from one of the older girls having gonorrhœa, and the children all using the same bath-tub, the same towels, and some of the same linen, the infection had spread from one child to the other. If this is the case, and we have no reason to doubt it, I think that it is quite possible for all of these cases of vaginitis in young children to arise from gonorrhœal infection. Lately it has also been shown that specific organisms, such as the staphylococcus pyogenus aureus, may exist in a perfect healthy vagina without causing any trouble whatever. These organisms may also spread to the uterus and tubes and give rise to pus tubes. As for myself, I believe that nearly all pus tubes are due to specific infection. We may not be able in all these cases, however, to demonstrate the existence of the specific organism, because it is known that organisms die out on any medium in which they may be growing, provided this medium is by their continued growth rendered unfit.

DR. I. N. BLOOM: Concerning accidental infection—as a case in point: A child, five years old, was brought to me, suffering from what seemed to be simple vaginitis; no examination was made for the gonococcus because gonorrhœa was

not suspected. The history of the case was that the child had been with her grandmother for two or three weeks, and there she had noticed a slight discharge from the vagina of muco-purulent material; she had developed a severe ophthalmia two weeks after her return. An oculist was called in and upon examination pronounced the trouble gonorrhœal ophthalmia. All history of gonorrhœal contact was denied by both the parents of the child and the grandparents, but accidentally the oculist discovered in a drug store, a prescription for a nitrate of silver solution to be used as an injection by the father, who had denied any history of gonorrhœa. Seven or eight weeks after I first saw the child, the father consulted me with the remains of a clap. Had it not been for the accidental discovery of the prescription in the drug store, it is probable that I should never have suspected anything more than simple vaginitis. I do not believe that a clear differentiation between simple and specific vaginitis has been demonstrated clinically in young children.

DR. J. W. IRWIN: I have very little to add in closing. The possibility of infection in this case is very remote indeed; if such a thing could occur it would be almost miraculous. So far as the treatment is concerned, thus far it seems to have been successful in relieving the trouble, and I hope the good results will continue until she is finally restored to health. I am gratified to see that the gentlemen who have spoken on the subject, agree with me in the management of the case. I have had a number of cases of this kind in former years, before the question of abdominal surgery for the relief of such conditions was spoken of very much, and, I believe, with fairly good results. In a great many cases permanent recovery resulted, while in a few the results were not permanent, and I have no doubt some of them, before this time, have lost the tubes, ovaries or womb.

He Had No Headache.

Mrs. Cawker—"Haven't you got a headache to-night, Ben?"

Mr. Cawker—"No, my dear."

Mrs. Cawker—"Oh I am so sorry that you have not! I bought a new headache cure to-day at a bargain, and I wanted you to try it."

THE WESTERN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Annual meeting, Kansas City, Missouri, December 27th, 1892.

[OFFICIAL REPORT.]

Dr. J. C. Barnes' (see page 517) paper
on

ECLAMPSIA OF PREGNANCY.

DISCUSSION.

DR. HALL: That we are all in great doubt as to the cause of puerperal eclampsia in pregnancy goes without saying. I have had a great many cases, unfortunately, though, fortunately many of them have recovered. I think the majority of them were dependent upon renal trouble. However, we do come across different causes. Recently I was in consultation with a physician in this city, in a case where there was no evidence of renal trouble, and the patient went into a comatose condition after the second or third convulsion and never rallied, but died. I believe that in our progress, so far as the treatment of this disease and condition is concerned, we have sometimes, perhaps, progressed away from the truth. It is the fashion to lay aside venesection too often. In most cases, especially in plethoric cases, it is indicated. In fact I always use it in those cases.

In regard to the treatment there is a remedy not used in this case, which I have used and which has been used more largely by others, that is undoubtedly of great value, and that is the hypodermic injection of *veratrum viride*. That it has wonderful power in controlling these convulsions is unmistakable. I have given from four to ten drops hypodermically, frequently combining it with morphia, with the happiest results. Some physicians I have known to use as much as fifteen to twenty drops hypodermically. I used sixteen drops once and thought I had killed my patient. The amount of serum or bronchial secretion poured out was simply so enormous that I thought my patient would strangle before she could be relieved. But I do recommend and insist upon the hypodermic injection of *veratrum viride*. Just how it acts in controlling the pulse I don't know; but it is a fact that it acts promptly, effi-

ciently and satisfactorily. Venesection, *veratrum viride*, morphia and chloroform, and the hypodermic injection of pilocarpine would certainly be indicated in this condition.

I wish to say also in regard to pilocarpine, my observation has been that in some of these cases I get a much more diuretic than diaphoretic effect; and I have frequently given it in cases where I desire a diuretic effect with success. I long since came to the conclusion that pilocarpine is much more valuable as a diuretic than as a diaphoretic, and in my own cases, if I anticipate any trouble, I give them pilocarpine in advance for the diuretic effect. Gentlemen, if you have not already noticed it, I believe you will find it worthy of trial.

DR. FRYER: From the standpoint of an oculist, I wish to say a word as to a point that I believe is often overlooked by obstetricians, and that is this, that in cases of pregnancy where we have trouble with the kidneys, it causes retinal difficulty; and that occurring during or before the seventh month of pregnancy, a very large proportion of those cases die from convulsions, or, if they get through their labor, they are afterwards blind from optic nerve atrophy. This is a point that I think every obstetrician should be aware of and keep in mind. I wish to concur in what my friend, Dr. Hall says in regard to pilocarpine in its action upon the kidneys. I have used pilocarpine hypodermically very largely, and I am sure in a large number of cases that we have the main effect upon the kidneys, and often little or no effect upon the skin.

DR. KING: Very soon after the reader began I mentally said, that patient died. That was not owing to the treatment at all, but from the fact that it is a very rare thing, after so many convulsions, or even half as many as noted in that paper, for such a patient to recover. My experience has been, and I believe the experience of others will bear me out, that where we succeed in curing the patient—

or relieving and saving her—it is only in those cases where we succeed in checking the convulsions at an early stage. I have seen but few cases of eclampsia, perhaps eight or ten, and it is my experience, where the patient had had eight or ten or fifteen convulsions before I got there, and that they continued afterwards for some time in spite of what I could do, the patient died. The patients I saved were those I saw early.

I believe there are two prime factors in the matter of relief. One of these is an early delivery. In the case of a pregnant woman with eclampsia, every possible effort should be made to secure delivery as soon as possible. The other factor is the elimination of the morbid element, whatever it is, through the alimentary canal and by venesection. I think it was unfortunate in this case that they were not able to get blood from the veins. It would have been justified if they had opened the temporal artery and got relief in that way. It was unfortunate, too, that they did not secure free action of the bowels. In cases such as this, where the convulsions have continued so long, and it is impossible to get that action otherwise, I believe that croton oil combined with sufficient doses of elaterium, every two or three hours, will do that work if it can be done, and I place a great deal of confidence in large evacuations from the bowels. My experience has been the same as that of Dr. Hall in that I rarely ever get diaphoresis. I have never tried pilocarpine for the reason that I have never seen a case of eclampsia since pilocarpine has been in use, and I hope I may never again see one.

DR. BARNES: In closing I have nothing further to say except that I am getting a little more credit than I deserve. At that time, I was resident physician in the hospital. After we got the patient in, she was in charge of Dr. Fullerton, who did the primary operation on the cervix.

Dr. Schooler's paper on

UTERINE FUNGOSITIES.

(See page 571).

DISCUSSION.

DR. BEATTIE: In the paper the writer has taken up this subject so fully, and his ideas coincide with mine so nearly that it does not leave very much for me to discuss. This condition is one that should

be carefully looked into not only by specialists but by practitioners in general. As to the treatment of these cases, I have never had any experience with electrolysis, but from the writings of others, I conclude that good results have been derived in that way. I usually resort to the curette for the removal of these fungosities, and I use a sharp curette. It is not attended with much danger in the hands of an able gynecologist. When these growths are removed skilfully and carefully the endometrium, we know, is reproduced, and satisfactory results can usually be obtained. We may not only have the endometrium softened, but the softening may extend down into the body of the uterus. We may have a uterus that is in a sub-involved condition; we may have a large amount of engorgement there. Where there is good deal of softening, very little pressure will take the curette into the abdominal cavity, hence it should be used with caution. Some operators never resort to the sharp curette.

Curetting should be done under strictly aseptic precautions and with an anæsthetic. I have curetted the cavity in my office, but it is something that I don't like to do. I would rather have the patient at a hospital or at her home, where she can be attended to properly and carefully.

DR. CORDIER: From the articles that appeared in different journals over the country, by men who are teachers in eastern cities, as well as some in our western cities, this subject, to me, is one of the highest importance in the whole range of gynecology. Sometime ago a noted writer, in condemning the removal of pus tubes and the opening of abscesses, etc., asserted that any obstacle we can place in the way of the laparotomist, we should do so. Now a declaration like that, coming from the source that it did, does an injustice to the progressive men of the country; it does an injustice to the patients of the country. These men are in positions of trust, so to speak; they are teachers; they are writers. Their writings are countenanced; they are accepted and recognized as being authorities. It remains for us, who disagree with their views, to overthrow these false theories. We are told that in septic conditions of the uterus, curetting is the thing to prevent extension of the trouble to the appendages.

We are told that cellulitis still exists in the pelvis as it did years ago, when it has constantly been demonstrated by operations and post-mortems that where we find inflammatory trouble in the pelvis, there we find diseased uterine appendages, abscesses, etc.

Now there are cases for curetting, but there is no doubt but such cases are few. Curetting is a major operation. It is an operation that one should undertake without knowing and having the ability to recognize whether or not he has diseased Fallopian tubes to deal with at the same time, because any interference with the uterus is sure to aggravate tubal trouble. In salpingitis it will convert a so-called latent condition into an acute condition, followed by the formation of pus with its direful results. As I say, this is certainly a major operation; it should not be done in the office of the physician. The patient should be put to bed; she should be prepared with the same care as though for a laparotomy. Scraping and cleansing of the vagina and uterine cavity should be carried out with just the same precaution, and as careful preparation as the largest abdominal operation known to surgery. The os should be dilated for two reasons, that your work may be safely done, and that the drainage may be good afterwards—a very important thing in these cases. In a large number of these cases where the curette is indicated, you will find it to be for retained placenta. Outside of that it is extremely rare to find a case where the curette is indicated. I desire, before this society, to condemn the reckless use of the curette; I mean by reckless use, the use of it in the physician's office. Within the last two weeks, I have known of patients alleged to have been curetted in the office of physicians, without anæsthetics, without dilatation of the os; they have been curetted and allowed to get up off the table and go shopping. It is a question in my mind whether they were curetted or not. If they were curetted, I don't believe they needed it; if they did, they didn't get the proper treatment, because it wasn't done correctly, for no man can do a curetting properly without an anæsthetic.

DR. VAN EMAN: As I understand the gentleman's paper, he treats not of women who are bearing children and liable to have a portion of the placenta retained,

but of that class of women, from forty-five to forty-eight, who have had from week to week and month to month, more or less hemorrhage from the uterus. They have been told perhaps by their family physician, and much oftener by the neighborhood women, that that is part of the penalty they pay for being women, and as a rule they neglect to call upon a physician, even their family physician. They will go further than that, and after the flow has ceased for a year or two, some of them think their youth is coming back to them. Now that is the class of cases, as I understand the paper, that indicate the use of the curette. Now I have one rule so far as that septic business is concerned, it is simply: Be sure of being clean yourself, of having a clean instrument, and that your patient is clean. If you stop short of that, I don't care whether it is in the office or in the hospital, you don't fulfill the whole law so far as surgery or gynecology is concerned. When you fulfill that law to the letter it doesn't make a great deal of difference where the work is done; that depends a great deal on the nature of the case. Now the first law that I lay down is, that every woman who has a protracted hemorrhage, the physician should decline to treat without an examination—just simply decline. Second, that an examination should be made with the greatest care, whether made at the office or the woman's home. It is often much more convenient to make it at the office than at the house. When it has been decided—and it can be decided very easily by the plan outlined—most any instrument, if it is clean—and if not, he hasn't any business to use that, or anything else to be passed into the uterus—may be used, and you bring out a little warty mass. You don't need to have half a dozen of these; one is sufficient to tell the practiced eye what is inside of that uterus. I have in mind now the case of a woman forty-seven years of age, who for six weeks had had a continuous hemorrhage, supposing it was she who paying the penalty for being a woman, and so giving but very little attention to it until finally she became so blanched and bloodless that she couldn't sit up in bed, and I was sent for. In that case there was no trouble at all to find out the condition of the uterus and to use the curette. I used the sharp curette—and I take it for granted

that the man who isn't fit to use a sharp curette isn't fit to use any curette. I could have done it without dilating the os, but I did dilate and under the influence of an anæsthetic, because it is easier to do the work and to do it thoroughly. A few minutes curetting absolutely and permanently cured this woman of her metrorrhagia. There isn't anything that would remove that but curetting, any more than it would remove a wart on your hand. It is an exuberant growth covering the uterus, and the sharp curette is the instrument to use. Be just as clean as you know how; if you don't know how to be clean, learn.

DR. ADAMS: I heartily concur in this paper with the treatment which is advocated. The gauntlet has been thrown by Dr. Cordier, but unfortunately is outside the scope of this paper. I am a firm believer in the curette and its efficacy in certain circumstances and conditions. But referring to the paper and speaking to that alone, I don't believe in the use of the curette to gain any definite object and therapeutic effect unless under the use of an anæsthetic, and with all the precautions that you would enter upon a laparotomy. I believe that when you curette the uterus you should have a thorough dilatation; that you should have all the aseptic preparations necessary for any operation; that in the hands of him who has his mind at the end of his fingers, the curette is a safe instrument. In cases of uterine fungosities it is pre-supposed that the physician will examine the patient and take in all the surroundings before he enters upon that operation. He will see whether there is a pus cavity there. He will take every precaution—emptying of the bowels, thorough antiseptic irrigation, and then, if you please, antiseptic or aseptic packing—and you can enter the uterine cavity with a curette and take out uterine fungosities just as safely as you can enter the abdominal cavity and take out the ovaries or uterus. That is all there is to it.

DR. BEATTIE: Dr. Cordier and Dr. Adams both spoke especially of dilating the cervical canal. Now my experience has been that when the endometrium is fungoid in character there is some change in the cervical canal as well. Nearly always when we have this condition of the endometrium, we have some inflammatory

trouble existing in the cervix; and, when this is the case, if it has gone to any great extent, you will find, instead of the rigid os, a relaxed condition; you will find the cervical canal very much thinner than it is under ordinary circumstances, and as a rule you can introduce quite a large curette without any trouble, and to save my life I can't see why you want to dilate the cervical canal.

Cleanliness is certainly important. I listened this afternoon to one or two of our brother practitioners discussing the paper that was read, upon the mode of preparing patients and instructing medical students, and the taking care of women in confinements. It is nice to tell these things; it is nice enough to come before the society and say what you ought to do, but I tell you, gentlemen, you don't do it; you don't do it very often. And it is the same with reference to this particular operation. These things should be done at the hospital or they should be done at home under the most careful circumstances. But I say that cleanliness is all that we want; it is all that we want in the obstetric chamber; it is all that we want any place. And it is supposed that an ordinary physician is a man of a little more than ordinary calibre, and the men in the particular line of the diseases of women that I am speaking to—I mean who have devoted some special study to obstetrics—it is supposed that they understand these things; it is supposed that they will not undertake a case unless they have washed their hands thoroughly and have taken the other precautions.

DR. WARD: I desire to correct Dr. Beattie about one thing, if he is referring to the physician-in-charge of the Preston Retreat; and if he means to state that he doesn't carry out the minutia that he describes. And I will ask him to kindly go to Philadelphia and observe, at my expense—that is, if he finds there is any error in that matter. I think you will be very tired, Dr. Beattie, when you see the minute details—when you see the work there—and say you can never do it yourself.

DR. BEATTIE: I don't refer to my friend, Dr. Price. I think he does not go so far into the details with reference to some of the minor things in obstetrics, as my friend, Dr. Berger. I hope Dr. Berger is here to-night; I wanted an opportunity to answer his remarks this after-

noon. It was the way he had his medical students prepared for the obstetrical room. I tell you, gentlemen, when you tell me these things, I know better; I have been a medical student myself, and I know that they don't—at least when you give them bichloride of mercury and the other antiseptics—they don't use them, and they have just as good results as the men who are so very careful. I visited the Preston Retreat this summer, and I was very highly pleased and certainly encouraged. I was delighted with the conveniences and details of that institution; and it was certainly not with reference to that institution that I was speaking.

DR. PRICE: This is a very interesting subject and has received considerable attention this evening. It would seem that some gentlemen have limited the discussion to about one-half of its territory. If the doctor proposes to confine his use of the curette in this discussion to so-called fungosities and vegetations, papillomatous growths, polypi and the like, of course we can't take that liberty with his paper and with the curette that we should like. I feel that the curette has been used with very considerable freedom and recklessness—used without clear and recognized indications. I think about all the gentlemen have indicated that fact in their discussion, that it has been used by some without a recognition of clear indication. We well know that we can have profuse and irregular bleeding and discharge from a crop of sago granulations and papillomatous growths or fungosities, if you please. Just here, I may say, I am not so familiar with these so-called fungosities. I don't believe that the uterine cavity is so productive of that form of vegetation. You commonly hear in societies men speaking with great freedom about fungosities, but if you look them up and seek for them pathologically, you will often fail to find them. I believe in cleaning the cavity of an unhealthy uterus or of a dirty one, but first I must be assured that it is an unhealthy uterus or that it is the seat of some growth of that nature. Today, for instance, I made a demonstration; I removed a uterus from a woman fifty years of age, who had bled profusely and irregularly, had had a copious discharge and had received local and general treatment without relief. After removing this uterus—incising it—I remarked before one

or two present, that my finger or towel or a little piece of gauze would not wipe away all unhealthy condition found in the cavity. This uterus was the 101st. that I have removed by supra-vaginal hysterectomy, and in that group of 101 I have never removed a uterus that had anything in it that should be scraped away by the curette. And out of a series of some fifty or sixty vaginal hysterectomies, my experience stands precisely the same. I have used the curette freely in intra-uterine sarcoma, and that is not a rare disease. The cervix in many cases is perfectly healthy; there isn't the semblance of disease; the fundus is so soft and cheesy that you could scrap away almost the whole cavity of the uterus with the curette. We have no other means of clearing up the diagnosis in this group of cases except with the curette. We have profuse, irregular bleeding, offensive discharges suspicious in the highest degree; but to settle the question as to the precise nature of the trouble it is necessary to use the curette. It is also necessary to use it in mucous polypi and sago granulations, and in the remaining debris of a neglected abortion or miscarriage.

I wish to speak especially of this group of cases, the free and indiscriminate use following abortions or miscarriages when there is a suspicion of a membrane or a portion of the placenta remaining. You all very well know that there is a little gynecological wave going over New York at the present time, an endometritis wave. We have had these waves in gynecology for years, and just at present in New York everything is endometritis. It matters not what is the nature of the trouble in a woman's pelvis, the curette is used. I found last summer, while dealing with a few of these cases, having seen a few of them in New York—and specimens presented—for instance the puerperal or abortion cases—later I had to remove angry and vicious specimens from the pelvis, together with quantities of lymph, pus and muddy fluid independent of the specimens removed. I could not permit these cases to go without saying something about the New York treatment. They curette the uterus and pack it with gauze.

About the time I was dealing with some of these cases, a young physician assisting the coroner came into my office and asked for some practical work in obstetrics. I

asked him how he was spending the summer. He said he was following the coroner, and went on to tell me that they had an interesting case out at Blockley Hospital—criminal abortion; that they had some one arrested and locked up. I asked, "Did you have a *post*?"—"Yes."—What did you find?"—"We found all the intestines matted together, pus and lymph and everything glued together."—"What had been done?"—"Well, the uterus had been curetted and we found it full of gauze." Probably I am not confining myself strictly to the paper but I just cite this case—and I could cite a great number of them—to show the reckless use of the curette without recognizing the precise nature of the trouble.

DR. HALLEY: I think that waves of fashion pass over the professional world as well as the social world. I know it does. I think the present wave of using the curette is one of them. It is in the hands of everybody who is pretending to do anything at all either in obstetrics or gynecology—and pretty near all of us do something of that kind—and every one thinks he has a warrant to go in and scrape the womb. It is a wonder one doesn't scrape her mouth out when she is bleeding at the gums; it would be about as sensible. I believe there is a great deal of harm done by it.

But I don't rise to discuss the paper in this way. Some twenty years ago, it was suggested to use nitric acid in the cavity of the womb for the treatment of those fungosities, and it was a treatment that the inventor declared gave him excellent results. In the small number of cases in which I have used it—and I have used it in as many cases as I found occasion for—I obtained most excellent results. Dilating the cervix and, in place of curetting, washing the cavity of the womb with some cotton. This, of course, after making the preliminary preparations. After that is done, in place of using the curette, use a piece of cotton or sponge saturated with fuming nitric acid. You can do all and more than you can with the curette.

DR. VAN EMAN: Just let me take the floor to say that the "more" that you can do with nitric acid is just what I object to.

DR. SCHOOLER: Some objection has been found with the name given to the

growth for which the curette is designed to be used. It is used generically for vegetations that can be relieved by that method. Now I saw the uterus that was removed to day, and saw the condition of the endometrium. It was not different from that of many others that I have seen, and I don't know what indication there would have been for the curette in that or any other fibroid tumor, unless you wish to use the curette first and make the diagnosis afterwards.

But if I intended to have any point to the paper, it was to make note of suitable cases, to limit the use of the curette to that class of cases entirely and not to go beyond that. It is a comparatively easy matter to ascertain whether any of these growths exist or not. If none of them exist, there is no benefit derived from the use of the curette except to scrape away the debris or remaining portion of a placenta after abortions or miscarriages; or sometimes where the placenta has not been properly or entirely removed after a normal parturition. The use of the curette in malignant growths, as a matter of course, is only temporary, and perhaps is more frequently used as a means of diagnosis than otherwise.

I agree with Dr. Beattie that dilatation is not very often necessary in these cases, although occasionally cases will be seen where dilatation is necessary before you can bring away anything of any size or importance with any comfort to yourself.

Now so far as fashions are concerned, that I suppose has allusion to the reckless manner of using the instrument. That, of course, I condemn as well as others; and as to the use of nitric acid, I agree with my friend on the right here (Dr. Halley), that if that should become the general practice to-day, there would be a great deal more done with it than has been done with almost any instrument in the last quarter of a century, and generally be to the detriment of the patient. Of course, I don't wish to be understood as saying that these growths cannot be destroyed by nitric acid, or that any other growth cannot be destroyed by nitric acid if applied in a sufficiently concentrated solution; but that strength would make it dangerous and haphazard when applied by persons without proper knowledge and experience.

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SATURDAY, APRIL 22ND, 1893.

EDITORIAL.

"MUCH ADO ABOUT NOTHING."

"Are you good men and true?"

"Yea, or else it were pity but they should suffer salvation, body and soul."

"Nay, that were a punishment too good for them, if they should have any allegiance in them, being chosen for the prince's watch."—*Shake.*

Under the alluring title "An Experiment in Castration" the *New York Medical Record* editorially gives the following unique item of news:

"An interesting experiment has suddenly come to grief at the Norristown Insane Asylum, Pa. Some of the medical staff became much impressed with the value of castrating women as a therapeutic measure in insanity. The consent of the trustees being secured a surgical ward was established, and fifty patients selected as being cases likely to be benefited by the operation. The process of oöphorectomy was begun, and went on swimmingly until the fifth case was reached. The fifth patient died, and a pause in the surgical work ensued. The Lunacy Committee of the State Board of Charities took up the matter, an investigation was begun and a report made. This report condemns the operation of oöphorectomy, except in cases of gross disease which absolutely demand extirpation. The subject of the personal rights of the insane in the matter was

dealt with by a legal member of the Committee, who offered this official opinion:"—
(Here follows the legal member's invaluable opinion).

The editorial comment would be a very good one if it were not a misfit.

As it is considerably over six weeks since the affair was fully exploited, it would seem as though the information ought to have reached New York at this date, even if it travelled *via* Chicago.

However, the *Record* is not the only medical journal that has just obtained the news of last December. The following letters, which appeared originally in the *American Journal of Insanity* for January, 1893, under "Correspondence," have re-appeared in a variety of other journals of more recent date—published by request. Most, though not all, of these journals appear to have missed connection with passing events, and are not yet

aware that these effusions are criticisms of "castles in Spain."

To the Editor of the *American Journal of Insanity*, Utica N. Y.:

MY DEAR DOCTOR: Thinking you might desire to publish three letters bearing on the papers sent you recently, I enclose you copies of letters received from Drs. Chapin, Goodell and Levick, all of this city. I would be glad if these could appear in the same issue of your Journal as the reports you have.

Very truly,

THOMAS G. MORTON.

DR. G. ALDEN BLUMER.

PHILADELPHIA, 12th Mo. 23, 1893.

DEAR DOCTOR MORTON:

The portion of the forthcoming report of the Committee on Lunacy on "Removal of the Ovaries as a Cure for Insanity" and the opinion of Commissioner Barlow on the legal relation of such operation, kindly sent me for perusal, are herewith returned.*

I can hardly express in words the satisfaction and gratification I experienced on reading your paper.

First, I felt to thank the Committee and the State Board that they have come forward to exercise the powers of their office to save the hospitals, and I may say our profession, from what threatened to become a scandalous proceeding. To erect an hospital, or propose one where women were to be castrated in companies of fifties, with the hope of a cure of insanity, would be generally regarded, in the present state of meagre knowledge upon the subject, as revolting.

There is no sufficient experience nor knowledge to warrant an operation of this nature, and I am sure that in this opinion you will have the support of the entire profession and the community. I will further add that the paper is so logical, and, as to the rights of all concerned, cannot be overturned.

In a case in England, Dr. Robert Barnes declined to perform the operation without the consent of the Commissioners of Lunacy.

Several applications have been made at

*This "portion" was withdrawn by the Board of Public Charities and its unauthorized publication formally denounced.—Ed.

this hospital for permission to perform the operation here, upon patients who were insane. It has not been the policy of the hospital to encourage operations of an experimental character, founded upon hypothetical conditions, upon the insane.

I am sure, for these reasons, and for the moral and legal questions involved, the managers would be in accord with this sentiment if the question were submitted to them.

As a physician of an hospital caring for the insane, I would, under no circumstances, assent to the performance of the operation discussed by your Committee upon a patient, if the responsibility devolved upon me.

Hospitals for the insane might easily lose a portion of the slender hold they now have upon the public and friends of patients, if it were understood that the patients were subjected to experimental operations of a hazardous nature.

Believing the action of your Committee and the State Board is in the direction of a wise exercise of its prerogatives, I shall support it and conform my action to it.

I remain, sincerely yours,

JOHN B. CHAPIN.

December 14, 1892.

DEAR DR. MORTON:

In the main I agree with you in the points which you have made. I believe that the whole business of removing the ovaries has been horribly abused, and I am glad that you have taken such a firm stand.

I have written to Dr. W. H. Baker, of Boston, for an account of his trial for removing the ovaries of a crazy woman, and I will send it to you when it reaches me.

Dr. Francis Imlach was ruined financially, professionally, and in his health by an analogous law-suit.

Very faithfully yours,

WILLIAM GOODELL.

DEAR DR. MORTON:

I have read with great satisfaction the paper kindly sent me by you. With the sentiments there expressed I heartily concur.

Insanity is a disease of the brain, not of some organ remote from it. And when manifestations of insanity seem to be especially associated with functional dis-

turbances of some one organ, this disturbance is secondary to the brain disorder, not the cause of it.

One of the most frequent phenomena in the insane is seen in disturbance of the digestive function, an *excessive* desire for food or a *depraved* appetite—*boulimia* and *pica*. Even pins, needles, stones, etc., are eagerly swallowed by such patients. But no one has ever proposed to cure this disorder by removing the stomach, or other organs concerned in digestion. The brain disorder is remedied and this functional disorder passes away. So, too, it is with the ovaries. To remove them *for the cure of insanity*, is, in my opinion, unscientific from a medical standpoint, unjust to the helpless insane, and I am glad it has been pronounced to be, by a high legal authority, an illegal if not a criminal procedure.

Very truly yours,

JAMES J. LEVICK.

December 26, 1892.

These three letters are interesting "voices out of the past." Two of them we lay aside without comment. But the first, on account of the official position of the writer and in no way because of his personality, must needs bear criticism.

"Come hither, neighbour: God hath blessed you with a good name: to be a well-favoured man is the gift of fortune; but to write and read comes by nature. . . . Well, for your favour, sir, why, give God thanks, and make no boast of it; and for your writing and reading, let that appear when there is no need of such vanity. You are thought here to be the most senseless and fit man for the constable of the watch."

It ought to be easy for the writer of this letter to find his affinities in an asylum for mental cripples. The letter strikes us as a large exhibition of moral cowardice, professional jealousy and perverted cerebration.

The author is greatly rejoiced that, "the hospitals and the profession are saved from a scandalous proceeding."

The only thing proposed was to treat the insane as others are treated. To operate for clearly and well-marked disease.

"There is no sufficient experience nor knowledge to warrant an operation of this nature."

There is not much experience to be sure, but of knowledge there is abundance and most positive in character. But so long as superintendents take the position that "under no circumstances" would they consent to the performance of necessary operations for the relief of disease, we are not likely to have a very large amount of experience. Hospitals *ought* to lose the slender hold they now have upon patients more easily and quickly by failing to do their plain duty, than by resorting to the clearly indicated surgical treatment, by and with the consent of guardians and friends.

In Tukes' Dictionary of Psychological Medicine, Vol. II, pp. 876, Dr. Robert Barnes, who writes the article, says: "The indication to remove the ovaries was to our judgment decisive. We were supported by the assent of her guardians, of an eminent hospital physician and of a distinguished alienist, but we declined to undertake the responsibility without the sanction of the Commissioners in Lunacy. *The patient continued insane.*" He goes on to say: "Sir Spencer Wells, in a case somewhat different, being consulted as to the legality of operating upon a lunatic, asked Sir Wm. Harcourt, then Home Secretary, who said: "If she is incapable of judging for herself, treat her as if she was an infant." So the operation was done, the patient recovered and married. Surely, (so Barnes concludes) this *dictum* is good sense as well as good law."

And earlier in the article he says: "One lesson to be deduced from this apparent conflict of experience is that the question demands earnest and extended inquiry." The lesson Dr. Chapin deduces is "Do nothing!"

When he says that "under no circumstances would he permit such an operation" he evinces unfitness for the position

he holds. If such a spirit as his is to predominate in the institution under his control, let them no longer call it a hospital. It is rumored that he and his colleagues do sometimes call in a consulting gynecologist, but a great majority of their female patients are never examined. In 1885, a woman was received at the Norristown Asylum coming from under the care of Dr. Chapin, *et al.*, at the Pennsylvania Hospital, where she had been for a long time. She was suffering from multiple carcinomatous growths attached to both uterus and ovaries. She lived only a few months and probably could not have been helped at an earlier stage, but her friends thought it very strange that the nature of her trouble had not been inquired into at the Pennsylvania Hospital. In like manner another patient was received at Norristown a few months ago, who had been three years at the Pennsylvania Hospital. She has some abdominal tumor of large size, presumably uterine fibroid, but Dr. Chapin could furnish no information on the subject when applied to. And this is a fair sample of common hospital treatment for the insane.

There is no general hospital where any well-informed medical man would be willing to send one of his insane friends, knowing they would receive hospital care and treatment.

A short time before the death of Dr. Kirkbride, one of Philadelphia's most eminent surgeons was speaking of this lamentable condition of affairs. He said: "I would not know where to send my wife or daughter, and if Dr. Kirkbride dies, I know a dozen men who will go before that Board of Managers and demand that this state of things shall cease." Evidently it has not ceased. They continue to take patients to board in a highly respectable way, but that is all. Dr. Chapin's own words convict him.

The writer of that letter will never be compelled to join in the piteous lament of

Dogberry: "Dost thou not suspect my place? Dost thou not suspect my years?—O that he were here to write me down, *an ass*! But, masters, remember, that I am *an ass*; though it be not written down yet forget not that I am *an ass*.—No, thou villain, thou art full of piety, as shall be proved upon thee by good witness. I am a wise fellow; and, which is more, an officer; and, which is more, a householder; and, which is more, as pretty a piece of flesh as any is in Messina; and one that knows the law, go to; and a rich fellow enough, go to; and a fellow that hath had losses; and one that hath two gowns and everything handsome about him.—Bring him away. O, that I had been writ down—*an ass*!"

He has allowed his writing and reading to appear "when there is no need of such vanity." Had he exercised due discretion and not allowed his credulity to place him at the mercy of "bunco players," he would speedily have learned of the action of the Board of Public Charities, repudiating the course of the Lunacy Commission, whose erroneous information and unauthorized, premature publications had placed the Board in such a stultifying position; and that the Board had unanimously rescinded that portion of their report bearing on the subject, and, that it had not been published with their knowledge and approval.

All this and more has been set forth in the "REPORTER," the last mentioned action being announced in the issue of March 11th.

"Were you ever caught in a sudden squall?" asked an old yachtsman of a worthy citizen. "Well, I guess so," responded the old man. "I have helped to bring up seven babies."

TWO GIRLS—"Please sir, do you keep excursion pills?"

Chemist (equal to the occasion)—"Yes, we have some very fast ones."

TRANSLATIONS.

PHYSIOLOGY OF THE HEART.†

Germain Sée (*Le Bull. Méd.*, Jan. 25) says that the cardiac system comprises three distinct elements, the muscle, the vessels and the nerves, which are themselves of three orders:

1. The cardiac muscle, or myocardium, governs the entire circulation, since, as proven by recent observation, it exercises an absolute and independent automatic power, scarcely modified by the functions of the other organs of the motor apparatus of the blood.

2. The vessels, especially the arterioles which may be taken as a type, constitute cylinders, tubes at times elastic as rubber, and contractile as smooth muscular organs; the elasticity, a passive property, when put into operation, furnishes an obstacle to the progress of the blood; the contractile activity reduces the calibre of the vessels and retards the circulation. The vessels are not, therefore, as has been recently suggested, a peripheral heart; the contrary is true; they are most often the antagonists of the heart, or at least, obstacles to the course of the blood (Dastre and Morat, 1884). This is especially seen when the tubes have lost their elasticity, as in arteritis, sclerosis, atheroma, and especially in calcification, where the tubes become rigidly, inflexible as incrustated canals.

3. The nervous organs are of three classes. The first comprises the ganglia to which has been ascribed the power of motor innervation, or the faculty of arresting motion. The most recent works have justified this hypothesis, so generally admitted. None of the ganglia, neither Ludwig's, Bider's, nor Remak's, possess an impulsive property. The heart is endowed with automatism and antonomy. Its movements, once established in their rhythm and according to the laws of activity of muscles, may be augmented in number by the sympathetic nerves, called accelerators, radiating from the spinal cord, or diminished by the indefinite nerves, called depressors, radiating from the medulla oblongata; this is the role of the second series of nerves.

The last series is, on the contrary, a true regulator of the tubes of escape. It is composed of two classes of nerves; in the first place by the vaso-motor *constrictor* nerves, which have their center of origin in the bulb; when these nerves are active the vessels which they supply contract and impede the transmission of the blood towards the periphery. If, on the contrary, the vaso-motor constrictor center, the source of the nerves of this name, becomes paralyzed, all the vessels of irrigation are relaxed; the vaso-motor paralysis has relaxed their walls. The other form of vaso-motor nerves is that known as the *vaso-dilators*; by their excitation they produce dilatation, the same effect as is produced by a paralysis of the vaso-constrictor center. The paralytic relaxation of the vessels or their true dilatation tend in certain conditions to a favorable result for the heart; they are the indirect means of progression. The constrictor nerves, stimulated in their center or in their periphery are, on the contrary, the means of reduction of the circulation.

The ganglionic masses and their respective roles in the functioning of the heart, have been variously interpreted and recently discussed in a new sense. Their situation was discovered by Woldrige (1883) and Tigerstedt (1884); their functions were gone over by His and Romberg in 1891, and definitely fixed by Krehl and Martins recently (Sept. 1892). The extra-cardiac nerves coming from the vago-sympathetic nerve, pass to the posterior surface of the bulb of the ascending aorta, and are directed towards the upper surface of the pulmonary artery. There, they divide into two networks, one of which, called bulbar, descends towards the ventricles, and the other, or anastomotic network, passes between the bronchial tubes and the pulmonary artery toward the auricles to constitute the auricular plexus. There are, therefore, a bulbar and an auricular network, together with an anastomotic plexus. The ganglia are collected in large number at the point of division of the bulbar and anastomotic plexuses; they are well surrounded by large arteries. Below the point of separa-

†Translated for THE MEDICAL AND SURGICAL REPORTER, by W. A. N. Dorland, M. D.

tion of the coronary artery, which, in the rabbit, enters immediately into the cardiac muscle, there are but few ganglia situated at the lower border of the arterial cone.

The ganglia are everywhere nestled in the lax cellular tissue of the pericardium, or its prolongations between the aorta and pulmonary artery; they penetrate into the partition between the auricles, never into the compact muscular bed. The ventricles have only a few isolated ganglia situated on the upper border of the arterial cone. The inter-ventricular wall in particular is deprived of ganglia; it is this part of the wall which is the seat of the probable center of coordination which Gley and Sée have described after Kronecker and Schemey.

Sée concludes as follows:

1, The cardiac ganglia do not possess most of the functions which have been attributed to them; they certainly are not, as has been said, the vehicle which governs all and in all. They are slight organs of sensibility.

2, It is the cardiac muscle which is supreme; it is not only the automatic motor of the circulation. After various diminutions in its power, it may itself repair and compensate for all in overcoming resistances, in emptying the surcharged ventricles, and all this by the over work which the heart executes with-

out having recourse to nervous influence.

3, The heart has in itself a dynamic reserve, and it is from this that its enormous power comes; the alterations of this organ should be taken in consideration when there is a local lesion, valvular or not, or a lesion of general origin. In one or the other case it is necessary to attend to the ultimate changes of texture rather than to have recourse to the common explanation of fatigue or dilatation of the heart, which cannot be denied.

4, Functions of the ganglia and nerves. The researches of His and Remberg, which have preceded those of Krehl and Martins, are still most explicit in certain points. The nerves of the heart, they say, do not develop with the heart, in the heart, but they proceed from the vagus nerves and from the sympathetic, to penetrate into the heart.

The cardiac ganglia are not sympathetic, and without doubt constitute centers of sensibility; they have no influence upon the arrest or upon the acceleration of the activity of the heart.

5, The cardiac muscle, on the contrary, works without any nervous excitation—it works automatically, and by its proper force; it is in the heart itself that it finds the impulses to its activity. The idea of a cardiac nervous center, itself automatic and motor, is therefore without foundation.

A CASE OF BIRTH IN THE COFFIN AFTER MATERNAL DEATH.*

A case reported in (*Kreisphysikus zu Schlochan in Westpreussen*, Bd. 3, 1893) by Bleisch has caused the author, Dr. Moritz, to report one of similar character. The patient, aged 35, fell in labor on Sunday, June 19th, at 12 P. M. She was attended by a mid-wife who examined her while having severe contractions on the lap of the husband, but decided that she could not deliver the child. She was brought to the edge of the bed, the mid-wife again using various manipulations with no effect. While she distinctly felt the head, according to her statement, she was still unable to deliver. At 7 A. M. the patient died without having given

birth to the child. The funeral took place three days later. Owing to a denunciation made by the gendarmes on the 5th of July, against the mid-wife as a causative factor in the death of the patient, the corpse was exhumed thirty-eight days after death and thirty-five after burial.

(a). *External appearance.* The female corpse 157 cm. long, well-supplied with fat; muscles well-developed. The skin is generally moist; whitish-gray color; face greenish-gray and swollen. The back, breast and abdomen greenish-gray and moist; and the inner sides of the thighs are soiled and grayish-red. The entire body is covered with blisters varying from the size of a pea to that of a

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

hen's egg, and filled with decomposing gases and moisture. The odor was unpleasant; the upper and lower extremities freely movable. The eye-balls are softened and deeply retracted. The lips bluish-black and moist. The abdomen markedly distended.

Between the thighs lay the corpse of a male child, 2½ kg. weight, 49 cm. long, and otherwise having the appearance of a fully-developed fetus. The child lay with its back upwards and the head near the knees of the mother, facing the left side of the mother. The cord was 47 cm. long, the size of a lead pencil in thickness; bluish-black in color and soft in consistence. The placenta was a bluish-black softened mass, and was almost entirely extruded from the vaginal tract. It was attached in one portion to the uterus, this latter being almost entirely inverted, and presented a large mass the size of a man's head. There was, therefore, total eversion of the uterus together with the vagina. The mucous membrane of both presented a smooth, slimy, reddish-gray surface with green spots, only at the place of attachment for the placenta was the surface rough and greenish-black. The labia majora were almost obliterated, and but traces of the labia minora could be detected between the former and the uterus.

(b). *Internal examination.* The cranial cavity: In opening the cavity the brain was found to have changed to a thin, reddish-gray, offensive mass.

The thoracic and abdominal cavity: The thoracic organs show nothing more than advanced stages of decomposition. The intestines contained in the abdominal cavity are markedly distended. The uterus cannot be found in the abdomen. The region where the uterus had been is marked by an oval opening 3 cm. long, and a-half cm. wide. On the margins of this opening [are seen radial folds. Pressure upon the inverted uterus causes a discharge into the abdominal cavity of foul-smelling gases, which causes collapse of the organ and permits its reposition. The walls of the uterus are about 6 mm. in thickness, and uninjured. The conclusions arrived at are the following:

(1). The patient died previous to delivery. (2). It was not possible to determine definitely the cause of death by

section alone, since decomposition had advanced too far. (3). It is impossible to tell if the patient died of hemorrhage, or if death was caused by a third person. The explanation for the birth in the coffin is that by generation of the decomposing gases the child was expelled from the uterus by mechanical pressure.

In closing the author states that in his case there was a certainty that the patient died before giving birth to the child, that at the time of burial, three days later, the child was still in the uterus, and, for that reason, *post-mortem* contractions could not be thought of; while on the other hand the presence of decomposing gases in the abdomen of the corpse were sufficient to cause the expulsion of a normally presenting fetus.—*Vierteljahr. f. gericht., Med.* January, 1893.

He Kept Grand Medicine.

In a Scotch village, where a young doctor had lately started practice, a workman had the misfortune to get his finger bruised badly in one of the mills. A doctor was sent for, and on properly dressing the finger the man nearly fainted. He was asked if he would take a little spirits to revive him. "Mon," he exclaimed with feeling, "that wud just be the very life o' me!" The doctor gave him a good glass, which he greedily swallowed, and on recovering his breath his first words were: "Well, doctor, I kin unco' little aboot yer skill; but, mon, ye keep grand medicine."—*Detroit Free Press.*

A GENTLE LAXATIVE.—A druggist received a Rx some time since, which called for Hydrargyrum Chloridum Corrosivum in doses of five grains every two hours.

The startled druggist sent the prescription back by the small boy for correction. A few minutes later the white hat, curly locks and Apollo-like figure of Dr. Blank appeared, and the voice from under the hat spake thus:

"What's the matter with that? Don't you think I know what I mean? That prescription means what it says."

"Might I venture to ask, doctor, what effect you expect from the drug?"

"The effect," returned Blank, "will be that of a gentle laxative, merely a gentle laxative!" Druggist fainted.

BACTERIOLOGICAL NOTES.

A NEW METHOD OF STAINING THE CAPSULE ON THE PNEUMONIA GERM.

The demonstration of the capsule on the pneumonia germ is sometimes attained with considerable difficulty, while at others, it is brought out very nicely by the ordinary methods of staining. Welch (*Johns Hopkins Hospital Bulletin*, Dec., 1892) in an article on the etiology of acute labor pneumonia, has given a method for staining the capsule in those cases where it is not easily demonstrated by other methods. "Cover-glass specimens made from the tissues without water, are treated first with glacial acetic acid, which is at once allowed to drain off and is replaced (without washing in water) with aniline-oil gentian-violet solutions. The staining solution is repeatedly added to the surface of the cover-glass until all of the acid is displaced. If now the specimen is washed with a saturated aqueous solution of common salt, and is examined in this solution, it will be seen that both coccus and capsule are uniformly and deeply stained and cannot be differentiated. If water be used instead of saturated salt solution, the capsules are decolorized, sometimes only in part when they can be

clearly recognized, but often completely, and they may entirely disappear by using weaker solutions of salt. It is possible in all cases to differentiate the capsule if it is present. The strength of the solution best adapted to different cases varies. Often the ordinary physiological solution suffices. A generally useful strength is 2 per cent. The specimens are to be examined in the salt solution. When mounted in balsam the capsules do not always remain distinct. The capsules may appear stained throughout or only their outer margin may be stained.

This method of staining was worked out on the supposition that the capsules are composed essentially of mucin which is precipitated by acetic acid and, when thus precipitated, is insoluble in concentrated salt solution and swells up in water. The chief disadvantages of this method are the difficulty of avoiding precipitates of the dye, and the alterations in the cells and other elements, but in difficult cases it will serve a useful turn, although less violent methods when applicable are to be preferred."

THE VIABILITY OF THE CHOLERA BACILLUS ON VARIOUS FOOD STUFFS, Etc.

Uffelmann (*Berliner Klin. Wochenschrift*, 1892, No. 48) records the results of his investigations on the viability of the cholera germ on a considerable number of food stuffs and other articles. These observations were made for the purpose of gaining information as to the danger of transferring these bacteria in the various articles such as milk or butter, meat, fish, bread, vegetables, fruits, etc. The results were as follows: In water the bacilli remained alive for from five to six days; in milk for about three days; on the surface of bread exposed to the air for about twenty-four hours; between the slices of bread kept moist, for about eight days; on cooked meat kept moist for eight days;

in butter for three days; on an apple for four days; on paper for about thirty-six hours; on copper and silver coins for only ten minutes after they were dried; on dry clothing for four days, on moist linen for twelve days or longer. The dry skin of the hand preserved the germs alive for more than an hour after contamination.

Uffelmann also showed that house-flies were capable of infecting nutriment media with the comma bacillus two hours after walking over the dejecta of cholera patients. These observations show the importance of drying all infected material and the great value of air and sunshine in disinfecting after this disease.

ABSTRACTS.

ADMINISTRATION OF CHLOROFORM AND THE DANGERS INCIDENT THERETO.

J. D. Balfour, M. D., London, Ont., discussed the subject under two headings:

1. The dangers of chloroform, their causes and treatment.

2. How to avoid these dangers, *i. e.*, the best mode of administering chloroform.

For the sake of convenience we will speak of three stages in the administration of chloroform: (1) Excitement; (2) Complete anæsthesia or unconsciousness, and (3) Profound narcosis.

Dangers from the Lungs.—The first stage, or that of excitement, is the most dangerous, as more than half of the deaths from chloroform occur during this period before the operation is begun. One source of danger here is the liability of asphyxia from direct obstruction to the entrance of air into the lungs.

This condition may be caused by stertor, falling back of the tongue and depression of the epiglottis, spasm of the glottis, nasal obstruction, and also by the administrator, in not allowing sufficient air to enter to maintain the respiratory movement.

By stertor here is not meant the ordinary palatine stertor of snoring, but a stertor caused by the vibration of the epiglottidean folds which approximate so closely sometimes as to endanger life. This condition is recognized by the peculiar noise, the lividity of the patient's face, and from the fact that although the respiratory movements may continue, no air is entering the lungs, as may be ascertained by placing the hand over the patient's mouth.

Falling back of the tongue and depression of the epiglottis is another form of direct obstruction to the entrance of air, one, however, easily recognized and somewhat frequent, occurring several times in my experience. Both these forms of obstruction are removed by turning the patient on the side and drawing forward the tongue, this operation relieving the stertor in the larynx and raising the tongue and epiglottis. Spasm of the glottis is another form of direct obstruction;

here the patient's face becomes livid, convulsive movements ensue, the respiratory movements continue, but no air enters the lungs. When this condition is present the chloroform must be stopped at once, and if breathing does not take place directly, artificial respiration should be kept up until the patient is restored. If sufficient air be not allowed to enter the lungs with the chloroform, the chloroform itself becomes a direct obstructing agent and causes asphyxia by excluding the air.

Dangers from the Heart in the First Stage.—By far the most important source of danger in this stage is the risk of an early, sudden and sometimes fatal syncope. As to its cause authorities differ widely.

It seems sometimes to be induced by the act of vomiting, but whatever the cause, this much is certain, that the first effect of chloroform is to stimulate the higher nerve centres in the medulla, so that their functions are disturbed; they are intoxicated, so to speak, and while they are in this condition syncope is liable to occur.

Its advent is sudden, the face becomes pale, a few short shallow breaths, and the heart stops beating, although the respiratory movements may continue. It is, however, a comfort to know that syncope at this stage is not nearly so dangerous as when it occurs later on during returning consciousness.

If the patient's head be lowered, and artificial respiration at once resorted to, it will generally, some say always, restore the patient.

Nitrite of amyl is of service here, especially if the syncope be caused by a reflex inhibition of the heart.

As stated before, there is great danger as long as the stage of excitement lasts. Now, the stage of excitement will not cease until the reflexes are abolished, and as chloroform is given for the express purpose of paralyzing these centres, clearly the safest method is to keep up a sufficient and continuous administration from the first until this effect is produced.

It is a dangerous procedure to remit

chloroform in this stage. I would like to emphasize the statement that I hold the best way to administer chloroform in the first stage is to commence cautiously, and then to continue with a hand neither timid nor reckless.

We will now enter the second stage, that of complete anæsthesia or unconsciousness.

If the chloroform is now continued without abatement dangerous symptoms will soon be seen. The pupil becomes suddenly fully dilated and fixed, the globes prominent, the respiratory movements weak, irregular and sighing, the heart beats irregular and feeble, the face very pale; the commencement of these symptoms marks the beginning of the third stage, or that of profound narcosis.

I stated that the stage of excitement was the most dangerous period in the administration of chloroform. But almost equally dangerous, if unfortunately it becomes necessary to enter it, and sometimes it is necessary, is the stage of profound narcosis.

It is clear, therefore, that the object of the administrator during the operation should be to avoid these two danger points; on the one hand not to allow the patient to so far recover as to allow the reflexes to operate, and on the other to be careful not to endanger the centres of respiration and circulation by too much chloroform. But this is not always easily accomplished.

The best way, however, to guard against the first danger is to frequently examine the eye, and any movement the patient may make, for symptoms of returning consciousness and reflex action.

If the pupil be contracted and the conjunctiva insensible to touch there is generally no danger from this source. But remember, no single sign can be trusted. To prevent danger from the second source, the administrator should watch particularly the respiratory movements and observe the countenance, and I have no fault to find with those who look after the pulse too. Should respiration become weak, irregular or sighing, the countenance pallid, or the pulse irregular, rapid and feeble, the chloroform must be stopped at once. If during a prolonged operation signs of heart failure develop, anticipate danger by stopping the chloroform and completing the operation with ether.

Third Stage.—Notwithstanding all pre-

cautions, death sometimes occurs in this stage, and is then the result of direct paralysis of the centres of respiration and circulation, or both, by the chloroform. If, from heart failure, the face becomes very pale, the breathing weak, short and catching, the heart ceases to beat and the patient is in a state of syncope, (and all this sometimes with little or no warning,) stop the chloroform, lower the patient's head immediately, and if the heart does not at once resume its functions, commence artificial respiration. Hypodermic injections of digitalin and strychnia is the best accessory treatment.

If asphyxia threatens, the face becomes livid, the respiratory movements irregular and spasmodic, convulsive movements are seen and the breathing stops, while the heart continues to beat flutteringly. Here again chloroform must be stopped and artificial respiration immediately resorted to, care being taken to keep the patient's head low. Digitalis and strychnia are also very important adjuncts in completing the patient's recovery. I have seen a touch of a battery excite breathing after artificial respiration had been kept up for some seconds.

In any case of imminent danger, whether the heart or lungs be at fault, the patient's head being immediately lowered, artificial respiration should at once be commenced. Additional aids, such as those already mentioned, should also be practiced. It seems to me however, that the majority of deaths that occur in this stage are attributable to the combined effects of the chloroform on both the circulatory and respiratory centres, and not to either one separately, because the depressed condition of the circulation or respiration caused by the chloroform each aggravate the other on account of their mutual dependence upon each other.

Suppose the operation over. There is still a dangerous period of returning consciousness, during which the reflex centres are recovering their normal condition, and the connection between the heart and the cardiac centre is being re-established. If death occurs now it will be from syncope, and is most likely caused by impressions sent by the now distressed heart along the depressor filament of the vagus to the vaso-constrictor centre inhibiting its action and causing it to release its hold on all the vascular areas.

This is a much more dangerous form of syncope than that which occurs in the first stage, because by this time the heart is weakened by the action of the chloroform and its own intrinsic ganglia, and when it does occur death is almost certain to ensue.

The methods for the treatment of syncope before indicated must, of course, be assiduously employed.

Before leaving the subject of danger I wish to refer to the classes of cases in which death ensues in one, two, three or more days after the operation.

I have seen two cases, one in particular where the patient appeared to be in good condition after the operation and everything indicated ultimate success, but the pulse became gradually weaker, more irregular and rapid, in spite of all treatment, until death occurred at the end of thirty-six hours. Is death to be charged to chloroform? Yes.

One very important quality of the heart is elasticity, by means of which it is enabled to dilate when occasion requires and again resume its normal size when the emergency is passed. Now, a constant result of the administration of chloroform is dilatation of the heart, and it is clear that if its elasticity be impaired by any cause whatever, as by fatty degeneration, it may not be able to recover itself after the dilatation caused by the chloroform, and is consequently unable to sustain life long, although the patient may live through the operation.

If this be true, it follows that a fatty heart or a weak dilated one is a contra-indication to the use of chloroform; the Hyderabad Commission to the contrary. But here a great clinical difficulty meets us, that is the almost impossibility of recognizing this condition of the heart beforehand.

I now come to the second heading, "Administration of Chloroform."

Preparation of the Patient.—It is a well-known fact that chloroform is best administered on an empty stomach. No solid food should therefore be allowed for five or six hours before the operation, but a cup of soup or broth may be given with advantage two or three hours before. If a weak heart be suspected, strychnia and digitalis should be given for a couple of days before the operation. This treat-

ment was first suggested by Professor Wood, of Philadelphia. The strychnia antidotes the chloroform and the digitalis tones up the heart. Other eminent authorities recommend alcohol before administering chloroform. Alcohol is not unlike chloroform in its physiological action, and the use of it is held to lessen the quantity of chloroform required. It is certainly of value in the case of habitual drunkards.

Suppose the patient now on the table. Don't commence the chloroform until everything and everybody is ready for the operation. If there is any waiting to be done let the operator be the one to do it. See that there are no false teeth in the mouth, nothing tight about the neck, chest or abdomen, don't allow two or three pillows, which is the usual request, place the head on a level with the trunk, or lower; this guards against syncope.

The patient may lie on the back or side, I prefer the side. This position allows the saliva and mucous to run out of the mouth instead of down the throat, and prevents the tongue from falling back. When the patient is under the influence of the anæsthetic he can be placed in any position the surgeon requires.

The slight struggling, which is sometimes seen, is no indication to stop the chloroform, some of the assistants can control the patient's movements. Vomiting is sometimes troublesome at this period. It is a reflex action, and the best cure for it is to push the chloroform until the vomiting centre is paralyzed. If it does occur, see that all solid particles are cleaned from the mouth and nostrils, and satisfy yourself that none has found its way into the trachea. Vomiting, however, often gives the most trouble after the operation, and I know of nothing that can be relied on to relieve this very distressing symptom. If an opportunity offers during a prolonged operation I would allow the patient to approach consciousness, this tests his powers of reviving and rests the heart.

The last point I will touch upon is in relation to the apparatus used in the administration, and I will at once state my preference for a Junker's Inhaler. This instrument is so arranged as to regulate the amount of chloroform taken at all times, it assures the admission of plenty of air and requires very little chloroform,

it is a simple instrument, and would be safe in the hands of the most inexperienced; but any apparatus is dangerous if it leads the operator to think that by using it he may relax his personal attention to the patient.

In conclusion I would say that I consider every one who administers chloroform should make himself aware of its dangers and should bear in mind the indications which announce these dangers. Every administration of chloroform is in itself a serious procedure and should only be un-

dertaken with a feeling of responsibility, and with the consciousness that the life of the patient is in the hands of the administrator, and should occupy his constant and undivided attention.

An experienced and observant person will instinctively gather from numerous indications the approach of danger, and in the hands of such a person, the risks incident to the use of chloroform will be reduced to a minimum, but I do not believe that the danger factor can be wholly eliminated.—*Montreal Medical Journal*.

THE CUTANEOUS CICATRICES OF SYPHILIS.

Dr. Hyde, of Chicago, in speaking of "The Cutaneous Cicatrices of Syphilis" in the *Journal of Cutaneous and Genito-Urinary Diseases*, for March, 1893, states that from a diagnostic point of view, the value of the recognition of cicatrices upon the body surface can readily be appreciated. The evidence thus furnished as to a prior surgical or accidental traumatism, or a previously active tuberculosis, zoster, or other cutaneous malady, may be both instructive and portentous.

This is more strikingly true of the cicatrices which are due to a disease which has had not merely a significant past, but may also have a formidable future. Such a disease is syphilis, whose persistent marking of the bodily surface may be of prime importance in determining the exact character of an epileptiform seizure, a pulmonary hemorrhage, a sudden hemiplegia, or an insidious albuminuria.

All properly trained physicians are more or less familiar with the typical cutaneous cicatrices produced by the degenerations and ulcerations of syphilis. They have no great difficulty in recognizing by inspection their cyclical outlines, their usually exact definition, their slight depression below the general level of the unaffected tissue about them, their generally superficial location, their freedom from deep attachments, their hue varying from the deepest chocolate to the dead whiteness of other ancient scars, and their smooth, even at times, lustrous surface. Usually, also, it is not very difficult to recognize the combinations formed

after multiplication, and what may be termed coalescence of these typical cicatrices, producing thus outlines suggestive of the figure of "8," the letter "S," the horse-shoe, the kidney, and that arrangement of smaller, about arcs of the larger size similar to the devices of the jeweller whose gems are set about a brooch. It is rather with a view to recognizing the modifications of these type-scars, as they occur in different regions of the body that the present study has been attempted.

The cicatrices of syphilis on the scalp are usually obscure on casual inspection, by reason of the pilary growth with which they are surrounded and which must be removed in order to ensure careful observation. They may be loosely arranged in two groups, the one including the relatively large scars, the other those of smaller size; the former usually single and rarely more than double; the latter often but not necessarily multiple.

The single large scalp cicatrices of syphilis are rare and commonly occupy the greater part of the surface above the calvarium with the center approximately near the vertex. They betray the classical features mentioned above in their circular and oval outline, their superficial character, and their slight depression below the general level of the scalp. Very rarely indeed, however, are they to any degree pigmented, their color, when they are at all colored, being of the deep red empurpled hue of a more or less recent hæmatostasis. As a rule, after even a few weeks of healing, they are of a dirty

whitish or grayish hue. They are usually destitute of hairs save that here and there a single filament or a scanty wisp projects from the smooth or scaling plane of the atrophic disk. The greater part or but a small portion of these platter or palm-sized scars may be composite, the elementary contained disk being plainly of the order of the larger and containing circle, viz., a small coin-sized or finger-nail-sized depression within a depression, defined, rounded, and having either a smooth central area or one that is of the sort described above as scaling. This well-known condition in syphilitic scars, suggests the flaking of the thin scale of mica as that material appears in some articles of manufacture.

The smaller cicatrices of syphilis upon the scalp may be single, but are usually multiple, rarely exceeding six to ten in number. They vary in size from a split pea to a finger-nail, and are probably in numerical proportion to the lesions just described as the deep pustulo-crustaceous lesions of ecthymatous grade from which they generally take their origin, stand to the rarer gummata of the scalp. On account of the fact that they are usually hidden from the eye of the observer by long hairs of the scalp and are thus much less readily scrutinized than the large scars already described; the attention of the physician is rarely attracted to them after cicatrization is completed.

The syphilitic cicatrices of the face may be considered in three categories: First, the larger, few or single and asymmetrical; second, those which are small, few, and also, as a rule, asymmetrical; third, those which are numerous, small and symmetrical. These are named early in the order of frequency of occurrence.

In the first and second classes may be included the scars fairly classical as to type, occupying one side of the brow, near the scalp; those of exceedingly irregular outline with jagged edges found on one side of the root of the nose; and those occasionally seen on one cheek, the temple and just below the ear. The third group includes an interesting and significant class of lesions, usually originating in a copious crop of resolving or ulcerating tubercles.

Here the skin of the entire face may be symmetrically involved, or, what is more often noted, the upper segment only. The

scars are numerous, flattened, closely set, defined, and very superficial, being remarkably smoothed away a few months after repair has been completed.

Upon the several regions of the neck, the trunk, and the hips, typical cicatrices due to syphilis occur in nearly the following order as to location: Above and below the clavicles, near the acromial extremity, over the scapular regions and the sternum, and upon the inferior segment of the abdomen and the lumbar region. They are more rarely seen in the axillæ about the iliac crests, and in the ano-genital region. In that last named, scars are more often due to venereal lesions of non-syphilitic origin, and the same may be said of the large majority of scars implicating the groins.

It is now well known that in both sexes and in the enormous mass of patients, chancre of the ano-genital region, precisely as in the case of extra-genital chancres, leaves no scars after healing. The cicatrices which are in rare instances left as sequelæ of these scleroses, result usually from irritative or traumatic accidents. Glancing at the upper and lower extremities together, we find a decided predominance of scars in the lower, due to the continued observance of the erect posture for hours at a time; a marked tendency to spare the hands and feet as distinguished from the arms, fore-arms, thighs and legs; a greater tendency to the clustering of scars about the elbows than about the knees, due to the effects of pressure in the trades; a preponderance of lesions upon the leg, as contrasted with the thigh; an equal participation of arm and fore-arm in the ravages of the disease; a larger number of lesions upon the anterior as distinguished from the posterior faces of the legs, and the external as distinguished from the internal faces of the arms. The rarity of syphilitic scars upon the palms, soles, fingers, and toes, even though, as is not rare, the neighboring wrists and inner aspects of the ankles be involved, is a conspicuous fact. Syphilitic scars of the hands and feet are rarely symmetrical, affect the hands more often than the feet, and are found as a rule more distinctly outlined upon the dorsum of the hand thence spreading over the hypothenar eminence, rather than in the center of the palmar area.

Every practitioner is at times confronted with the question whether scars of the lower extremities, especially those spread over the anterior faces of the legs, are of syphilitic origin, or due to the common forms of engorgement and ulceration, not rarely associated with an obstinate eczema, indirectly caused by varicose veins of the part. In cases it is really difficult to decide between the two, but usually one may, on close inspection, discover finger-nail-sized circular and superficial, or even larger scars of characteristic syphilitic appearance, at one point or other of the large area distorted with cicatrization and discolored with pigment. The larger, very formidable, irregular, and deeply and extensively pigmented patches are usually not syphilitic, but due to the vascular mischief. The existence of ribbed, corded, seamed, or puckered patches, with remnants of varices in the neighborhood, is always significant of the latter.

In most of the doubtful cases the key to the diagnosis is to be sought not so much in the pigment that actually is present, as in that which has been. In a male subject of average weight and size, a wholly decolorized syphilitic scar of the leg, the decolorization process being just completed, points backward to an infection from four to eight years before, and a healing of the precedent ulcer between two and four years previously. It is probable, though not certain, that the decolorization is completed somewhat sooner in persons of a blonde type, and in women, the latter fact due to the less demand made upon their sex in the observance of the erect posture. This slow inevitable, but steadily progressive clearing up of the color, is characteristic of the syphilitic leg, while the steady continuance, for long periods of time, of the vascular disturbance which lies at the root of the eczemato-varicose extremity, produces the final picture of deep inky-black or chocolate-tinted pigmentation, spreading over half or more of the limb, and presenting, after years of trouble, no such amelioration of symptoms as in the infectious disease.

Signs of Shock.

Dr. Kottman, of Berlin, says that the most important signs of shock are weakness of the heart, faint respiration, skin

pale and covered with cold sweat, face drawn out, sunken eyes, and livid lips; consciousness remains; sensibility reduced. Shock appears when certain very sensitive organs, as testicles, bones, or bowels have been subjected to contusion or other serious injury. Shock may occur from hemorrhage, and is then associated with functional changes in the body of which there are no post-mortem evidences. Two theories are advanced: the first defines shock as a reflex paralysis of the heart and vessels, caused by the trauma; according to the second, the injury causes, reflexly, exhaustion of the medulla oblongata and the spinal cord, and, as the nerve centres are affected, there is debility of heart and respiration. The fever which accompanies shock is, according to Dr. Kottman, the consequence of trauma. The substances causing the fever are here chemical and not bacterial, are freed from normal tissue matter by the injury, and include hemoglobin, fibrin ferment, and similar elements. He objects to confounding shock with debility due to hemorrhage. In the latter there is rapid pulse, quick, deep panting respiration. In shock the patient presents the evidences of cerebral irritation, noises in the ears, affected vision, palpitation, yawning, and even convulsions. In severe cases of shock the usual remedies—alcohol, ether, caffeine and camphor—may be used without relief. The similarity in the appearances resulting from hemorrhage and from shock induced Kottman to use salt-water transfusion in four cases with good results. By the neuro-pathological theory the explanation is that the effect of the salt solution is to stimulate the centres with which it comes in contact, and with increased arterial pressure the central nervous system would receive more blood and recuperate more quickly. If the hemo-pathological theory is accepted, the explanation is even more simple: the salt-water would fill the empty heart and vessels, and the hydraulic requirements would be fulfilled while the blood in the distended abdominal vessels was being restored to the circulation. Patients suffering from shock often require severe operations, especially the amputation of members. Experience shows that chloroform anæsthesia in these cases is attended with unusual danger; the danger is less with ether.—*Amer. Jour. Med. Soc.*

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOURNAL OF OBSTETRICS

for April. Dr. Franklin H. Martin contributes an article on

Vaginal Ligation of a Portion of the Broad Ligaments for Uterine Tumors or Hemorrhage.

The operation proposed consists in "the ligation of more or less of the broad ligament with its vessels and nerves, the extent of the ligation depending on the result sought, from a simple ligation of the base of the ligament including the uterine arteries and branches of both sides without opening the peritoneum, to a complete ligation of the ligament of one side, including both uterine and ovarian arteries, with partial ligation of the opposite ligament without opening the peritoneal cavity, if possible, but by doing so if necessary." "The results sought in the operation are, first, checking of hemorrhages of the uterus by cutting off blood channels; and second, changing the nutrition of the uterus by interfering with its nerve supply, with the idea of modifying neoplasms which depend upon that organ for their nourishment and growth." The operation is performed with the patient in the lithotomy position, an incision being made in each lateral vaginal fornix, and a ligature applied by means of a curved needle with the finger as a guide. The conditions for which the author proposes applying the procedure are: "1. Acute hemorrhage of the cervix from all acute or chronic causes, which cannot be readily controlled by milder methods, as [a], rupture of the cervix in child-birth, by operation or by any other cause; [b], cancer of the cervix. 2. Hemorrhage from the body of the uterus as a result of abnormal growths: [a], fibromyomata; [b], sarcoma; [c], carcinomata; [d], intractable hemorrhagic endometritis. 3. For the purpose of changing the nutrition of myofibromatous tumors so that they will shrink in size, and, when of small dimensions, disappear altogether." The paper includes the report of two cases in which the operation was performed successfully, and is illustrated by cuts showing the blood supply of the uterus, and also the various steps of the operation.

Dr. Egbert H. Grandin, in a paper entitled "The Relative value of certain Obstetrical Operations," discusses the positions of Embryotomy, Cesarean Section and Symphysiotomy in modern obstetrics, and urges the necessity of a thorough knowledge of the capacity and shape of the pelvis of every pregnant woman in order that the attendant may be prepared to render operative aid if such be demanded.

Dr. J. Clifton Edgar contributes an article on

Embryotomy.

in which the statistics of the operation are thoroughly discussed. He divides the subject into the two heads—embryotomy on the dead, and on the living foetus. His conclusions are:

A. Embryotomy upon the dead foetus. Embryotomy upon the dead foetus is demanded when, the absolute indication for Cesarean section being absent, the extraction of the foetus undiminished in size would increase the dangers to the mother.

[a], This indication includes moderate degrees of pelvic contraction, malpresentations and positions, deformities of the foetus, and slight obstruction in the soft parts.

[b], In markedly contracted pelvis, with a transverse diameter at the inlet of at least three inches and a conjugata vera little under two and five-eighths inches, embryotomy, in combination, if need be, with pubiotomy (embryo-pubiotomy), other things being equal, will be indicated.

[c], In instances where the conjugata vera is much under two and five-eighths inches, when labor is obstructed by fixed pelvic tumor, extensive exostosis, advanced cancer of the cervix, celiotomy is to be preferred whether the foetus be dead or alive.

[d], Where the mother's condition demands rapid delivery, and the absolute indication for Cesarean section is absent.

B. Embryotomy upon the living foetus. [a], Embryotomy upon the living foetus is indicated during labor whenever the relative indication exists and the physical signs indicate that the life of the foetus is practically lost.

[b], In certain rare instances, also, when the condition of the mother is such (temperature, pulse, dangerous thinning of the lower uterine segment), whether from repeated unsuccessful attempts at delivery or prolonged labor, as to render embryotomy by far the safer operation.

[c], In obstructed labor due to monstrosities.

The article is illustrated by cuts of various forms of cranioclasts.

Dr. Robert A. Murray in an article on

The Limitations of Cesarean Section

reviews the Porro, improved Cesarean and Symphysiotomy operations, giving the statistics of each. In regard to symphysiotomy he says, "It must, however, be exceptional that a child of seven and a half pounds can be delivered in a pelvis of even two and three-eighths alive by pubiotomy, and he is inclined to believe that in the hands of American operators it will find its best scope in moderate deformities of the justo-minor type of three and a half to four inches conjugate, or in bad presentations where the child's head is large, and thus save from craniotomy, more especially as the forceps may be tried first." Craniotomy, he thinks, will be confined to cases where the foetus is dead, though it should also be performed in certain cases where the child is alive, as in hydrocephalus, also in the case of locked twins that have been mismanaged; but the child should always if possible, be given a chance. His conclusions are:

1. Cesarean section should be done always

where the conjugata vera is below two and three-quarter inches.

2. It should be done in the Roberts or Nagele pelvis with marked deformity, or where there is fixation of one or both sacro-iliac synchondroses from diseases--cases in which pubiotomy would be ineffective.

3. It is the best operation with diameters even larger than two and three-quarter inches, when the child's head is large and could not possibly pass a living child if pubiotomy were done.

4. Where tumors or exostoses are present the Caesarean section or the Porro operation is the best.

5. In cases of cancer of the cervix it should be chosen rather than pubiotomy, and should be done before labor sets in, so that no sepsis result.

6. The size of the child's head, in moderate contractions at the superior strait, will oftentimes be the determining factor as to whether an elective Caesarean section or a pubiotomy will be the best operation.

Dr. Henry C. Coe discusses

Cancer of the Cervix Uteri Complicating Pregnancy.

reporting a case. The author believes that, under some circumstances, incipient epithelioma actually favors conception in those who have been long sterile, by determining an unusual flow of blood to the uterus and thus increasing the receptivity of the endometrium. Pregnancy is not likely to be interrupted unless the disease extends as high as the os internum; though on this point there is some difference of opinion. When the disease is confined to one lip, spontaneous delivery is the rule, the prognosis for both mother and child being better when the posterior lip is effected. When the entire *portio* is diseased spontaneous delivery is less common, and there is always immediate risk of deep multiple lacerations of the cervix, or rupture of the uterus, and subsequent danger of hemorrhage and septicæmia.

In regard to the diagnosis, it is important to note that the significance of the irregular hemorrhages during pregnancy may be misinterpreted, being referred to placenta previa, erosion of the cervix, etc., rather than to malignant disease. The absence of a foul discharge, or impairment of the general health, is, of course, no criterion.

As to treatment, if the patient is seen for the first time, when less than three months pregnant, he would not hesitate, in the interests of the mother, to either amputate the cervix at once or, which he thinks is the better plan, to first induce abortion and subsequently to operate. After the third month, with the patient under close observation, and treatment with astringents and antiseptics, she ought to be brought safely through pregnancy unless the disease extends rapidly and involves the peri-uterine tissues. If it does there is no object in operating, since the mother will not be cured and the child will be sacrificed. The cautious use of the sharp spoon and the thermo-cautery around, not in, the cervical canal may serve to arrest its progress until term. The author believes

that if there is cicatricial stenosis, the mother runs almost as much risk from premature delivery as from labor at term. If the disease is limited, dilatation of the os may proceed normally, patience and non-interference being required. If there is a complete cicatricial ring it is better to use Barnes' bags at the outset rather than allow the patient to become exhausted by ineffectual efforts. Multiple incisions into the cervix can be made if necessary, though there is some risk if there is much friable vascular tissue and the peri-uterine tissues or vesico-vaginal septum are infiltrated. Statistics favor the application of forceps rather than version. Craniotomy does not seem to have been successful. Caesarean section should be performed two or three weeks before term, as in this way exhaustion and septic infection of the mother and the premature death of the child are avoided. No time should be lost in operating on the uterus after the puerperium. In the case reported by the author, the pregnancy was allowed to go to term. Subsequently the author performed a vaginal hysterectomy with success.

Dr. William Keiller contributes a scholarly article on

Axis-traction Forceps

showing clearly the mechanical principles that underlie their use. The author champions especially the form of traction forceps devised by Dr. Milne Murray, of Edinburgh, which is essentially the Tarnier rods applied to the long Simpson forceps. The author states that the forceps are especially useful in guarding against tears of the pelvic floor, as by their traction principle they compel the head to follow the axis of the vagina and cause it to be born in a position of flexion, instead of extension taking place at the vaginal outlet and causing lacerations. The instrument is equally valuable in the high applications as in the low. The paper is illustrated by diagrams and cuts of instruments.

Dr. Mary A. Dixon Jones, in a paper on "Colpo-hysterectomy for Malignant Disease," reports five cases in which there was no return of the disease after its removal, although in some cases several years have elapsed. These few cases, she says, "proved beyond a doubt that, by a timely operation, malignant disease may be eradicated from the system." The literature and statistics of the subject are reviewed in the paper, which will be continued in the next issue.

Dr. Albert S. Ashmead, in an interesting article entitled "Kangawiana," describes the obstetric practice and procedures among the Japanese, as established by the family of Kangawa, the hereditary obstetricians of Japan.

Dr. William H. Wathen contributes a paper on "Umbilical and Ventral Hernia," which was read before the Southern Surgical and Gynecological Association at Louisville, November, 1892, and which has appeared in abstract in THE MEDICAL AND SURGICAL REPORTER for Dec. 3rd, 1892, page 890.

Dr. Carl Beck reports a case of "Ectopic Pregnancy Twice in the same Patient, the

Second Time Complicated by Intestinal Obstruction." The patient recovered from the second operation.

Dr. Thomas C. Smith reports a "Sarcoma of the Uterus previous to Puberty." Such an occurrence is extremely rare and the diagnosis is proved by microscopical examination of the specimen by an expert.

Dr. I. S. Stone contributes a "Note on Drainage after Laparotomy." He says: "I have not lost a patient after laparotomy when drainage was not used, but the case reported, and two others which gave some anxiety, have caused me to urge more care in these cases where we do not suspect danger, and to insist upon the use of drainage in every case where any fluid is found in the appendages. I have not seen any bad results from the use of the drainage tube, although it does not always answer the desired purpose, and I have frequently used the gauze drain with signal advantage.

[In the case reported it was necessary to re-open the abdomen for the purpose of drainage.—Ed.]

Dr. Howard A. Kelly advocates the use of glass trocars for tapping large ovarian cysts. The instrument, which is figured in the communication, differs from that in ordinary use only in being made of glass, on which account Dr. Kelly thinks it can be more easily kept clean.

This issue closes with a memorial notice of the late Dr. Charles Pratt Strong, of Boston.

THE KANSAS CITY MEDICAL INDEX.

Dr. J. C. McClintock, in a clinical lecture, reports "A Secondary Laparotomy" which was performed for the release of adhesions: A case of "Talipes" associated with deformity of both hands. Three of the fingers were without a third phalanx, while the thumb on the right hand had three phalanges and two fingers had small growths projecting from the phalangeal articulation. The talipes was treated by the simple application of a plaster-of-Paris splint, the foot being semi-flexed and rotated outward while the plaster was wet and so held until the plaster had set: The third case reported was one in which a girl of six months, had swallowed a jack-stone six weeks previously. The foreign body was detected in the oesophagus by the finger and removed: The fourth case was one of uterine polypi: The fifth case was one of

Perforation of the Abdominal Walls by a Cow's Horn.

An examination showed that the horn had entered two inches below and to the left of the umbilicus, and had emerged two inches above the right anterior superior spinous process of the ilium, tearing up an irregular triangular shaped flap, with the apex of the triangle almost down to the middle of Poupart's ligament. The muscles and peritoneum were perforated below the umbilicus, the perforation extending outward to the right, making a tear $2\frac{1}{2}$ inches in length.

Warm water was poured over the wound, washing the omentum, 8 inches of which

protruded from the peritoneal tear. The patient was suffering profound shock, but rallied when the flaps were covered with towels wrung out of hot water. The peritoneum, muscles and fascia were closed with a continuous silk suture cut short. Then the rough edges of the superficial structures were brought together with interrupted sutures, a piece of gauze inserted into the lower corner for drainage and a bandage applied. The patient recovered.

Dr. J. S. Poyner describes the "Removal of the Secundines with the Capiat." After reviewing the difficulties usually encountered in cleaning out a uterus after abortion, the author proceeds to describe an instrument of his own invention which he has named the capiat and which is designed to remove the debris from the uterus. The instrument consists of a tube nine or ten inches long, through which extends a rod having a set of six springs fitted at its distal end, so arranged as to protrude when the tube is withdrawn. When the rod is rotated one-third of a turn, the springs are distributed around in equal spaces, forming a closed basket, which will have enclosed any substance which may have been in the cavity of the uterus.

Dr. James H. Etheridge presents a "Report of Laparotomies Performed" which has already been noticed in the MEDICAL AND SURGICAL REPORTER for March 25th, 1893, page 473.

Dr. H. C. Dalton reports

Some Cases of Laparotomy for Stab Wounds.

The cases are:

I. Stab wound of the gall-bladder and stomach. Laparotomy, recovery.

II. Stab wound of the liver. Laparotomy, recovery.

III. Stab wound of the liver. Laparotomy, death. In these two cases the wounds in the liver were closed with heavy catgut sutures.

IV. Stab wounds of liver and stomach Laparotomy, recovery.

The author states that he has been gradually coming to the conclusion that surgeons irrigate too much in laparotomies for recent injuries. He believes that even when the gut, bladder or other viscera is found cut or shot, and blood and a small quantity of urine or feces extravasated, better results would be gotten by trusting to the sponge. Of course if a large amount of feces or urine be found, irrigation would be imperatively demanded. He thinks that septic material is often forced among the intestinal coils by the irrigation, thus increasing the danger. He is also quite skeptical as to the good results of drainage in recent abdominal injuries, and thinks it should never be used save when sepsis is suspected or when the intestines have been handled for a considerable length of time. A safe rule is that the necessity which calls for irrigation calls also for drainage.

Mr. Jonathan Hutchinson. F. R. C. S. London, Eng., contributes a short sketch on the

Treatment of Gonorrhoea.

He always uses abortive measures and

mostly succeeds. He advises, first, an injection of solution of chloride of zinc, two grains to the ounce; next, sandal-wood oil capsules; and lastly, a purgative night dose, with bromide of potassium. The injection is used three times a day, the capsules (ten or twenty minims) taken three times a day. The ingredients of the night dose are three drachms of Epsom salts and a half drachm of bromide of potassium. He believes it is the action of the last named in preventing congestion of the parts that makes the abortive measures safe. If the case is very acute he sometimes prescribes tartar emetic, or tincture of aconite, but it is seldom that these are necessary. If the patient is well purged, there is no risk in the abortive treatment from the day he comes under treatment. He would as soon think of delaying to use local measures in gonorrhoea, as he should in purulent ophthalmia.

Dr. Emory Lanphear describes

A New and Rapid Method for Hysterectomy.

After antiseptic preparation of the patient, an incision is made through the abdominal wall close to the middle line, four inches or more in length. The ovary and tube of one side are caught and pulled into the opening, and a clamp applied to their outer side; but as close to the uterine body as possible; a heavy catgut ligature is passed through the broad ligament, tied, and a cut made between the ligature and the clamp; this suturing may be continued downward into the pelvis as far as convenient. The other side is then treated in the same manner, when the uterus, with its attached tubes and ovaries, may readily be brought up into the opening. The fundus is now tilted backward, a cut made transversely across the uterus, through the peritoneum, and separation of bladder from womb accomplished methodically and completely. This line of incision should be made just behind the vesico-uterine fold, which is easily recognized by touch; the dissection is done partly by fingers and partly with some blunt instrument, (I prefer the end of my blunt-pointed curved scissors used closed) the bladder being pressed away little by little, below and in front. When the region of the os tincæ is reached one finger is slipped into the vagina, the exact location determined, and the scissors pushed through the mucous membrane; this opening is extended across the anterior surface of the cervix as in the initial step of vaginal hysterectomy, save that the cut is made from above instead of below. The uterus now being pulled strongly forward a similar separation of uterus from rectum is made, but not nearly so much care is required as the distance is short and perforation of the rectum not easy.

When the opening through the cul-de-sac of Douglas is complete the sides may be ligated and the uterus cut away. As thus performed supravaginal hysterectomy is scarcely more serious than vaginal, the cut through the abdominal wall adding but an insignificant amount of danger to the operation. In cases where some special reason exists for so doing the peritoneum on the pos-

terior wall of the bladder may be united to that of the anterior wall of the rectum by a few catgut stitches.

Dr. A. H. Cordier considers the subject of "Puerperal Sepsis," reporting a case where laparotomy was performed without success.

THE CANADIAN PRACTITIONER

for March is wholly taken up with the study of Cholera in its different bearings.

Dr. George M. Sternberg contributes an article on the

Bacteriology of Cholera and Methods of Disinfection.

He says, the spirillum grows readily in the presence of oxygen, and also in the absence of oxygen, as it must do to thrive in the intestines. It does not form spores and is consequently easily destroyed. Milk is a very favorable medium for its growth, but it will not grow in acid media. There is sufficient pabulum for its growth in ordinary river or well water, but in water which is rich in organic pabulum, and consequently contains numerous other common organisms, it dies out as these take the precedence; so it would apparently multiply more rapidly in water not containing a large amount of organic material than it would in sewage. Koch found in his earliest investigation that this spirillum grows readily on moist linen, or the soiled clothing of patients. Ten minutes exposure to a temperature of 60° C.=140° F.—may be relied on for the destruction of the spirillum. Another very important point is that they are quickly destroyed by desiccation. As a means of disinfection he recommends steam at 100° C., carbolic acid, chloride of lime and seration. An agent which is very valuable and very important is recently slacked lime.

Dr. Albert L. Gihon considers the "Hygiene of Cholera," and Dr. A. C. Abbott the "Prophylactic Measures against Asiatic Cholera," describing the measures that should be taken during the prevalence of an epidemic.

Dr. Henry Hartshorne, in a paper on "Cholera and its Migrations," describes the course taken by the various epidemics.

Dr. Roberts Bartholow discusses

The Treatment of Cholera.

Of all the remedies proposed for the arrest of the diarrhoea not one has done so much good, in the writer's experience, as sulphuric acid. It is usual, and generally best, to combine some opium with it according to the following formulæ:

R	Acid sulphuric aromat.....3v.
	Tinct. opii deodorat..... 3iij.
M.	Sig. From ten to twenty drops every hour or two in sufficient water.
R	Acid sulphuric dil..... 3ii.
	Tinct. opii camph..... 3xiiij.
M.	Sig. A teaspoonful every half hour in water.

The remedies of which the most has been expected were salol and creolin, but the practical outcome has not been so fortunate as the promoters hoped for and predicted. From his observations of the effects of naph-

thalin in the various forms of diarrhoea, he is inclined to believe that this remedy promises well. As under ordinary circumstances it affects the whole intestinal canal, deorders the stools and restrains the peristaltic movements, it should under the different conditions of a true cholera attack accomplish similar results. Naphthalin may be combined with bismuth and carbolic acid, and opium may enter into the combination, if necessary. The use of calomel is also reviewed by the writer. He then proceeds to consider the subject of Enterocolysis, or irrigation of the intestine with a solution of tannic acid, giving the opinions of various observers. His opinion is that it is not of much value, since "it is difficult to understand how irrigation of the large intestine can modify a morbid process going on in the small intestine, for nothing is more certain than that an injected fluid does not pass beyond the ileo-caecal valve." The infusion of a saline solution into the veins and hypodermatoclysis, or the injection of a saline solution under the skin, are recommended for the treatment of the algid stage, with the advantage on the side of the intra-venous infusion. External heat should also be applied in the shape of hot bricks, hot baths, etc. For the muscular cramps he advocates the use of chloral hydrate combined with morphia and atropia. They should be given hypodermically; the chloral in ten grain doses by

itself, and the morphia and atropia together, in the dose of from $\frac{1}{4}$ to $\frac{1}{2}$ grain of morphia and from $\frac{1}{16}$ to $\frac{1}{8}$ grain of atropia. The attempt to feed a cholera patient when the digestive tract is undergoing desquamation is worse than useless. Beef tea is only harmful. A little cold milk or wine-whey may be given as the state of the stomach will permit. Thirst is excessive and the indulgence in water drinking is likely to excite vomiting, but the advantages due to the free use of water more than counterbalance the injury from a renewal or increase of the vomiting. Carbonic acid water may agree better than simple water. As the renal functions are suspended, or nearly so, and, as during the typhoid stage the restoration of these functions are of the first importance, the free use of diluents may prove, in a high degree, useful.

The last article in the series is "A Clinical Study of Eleven Cases of Asiatic Cholera treated by Hypodermoclysis and Enteroclysis," by Dr. Judson Daland and has already been noticed in THE MEDICAL AND SURGICAL REPORTER for January 14th, 1893, page 74.

Under Clinical Notes, Dr. Charles B. Langford reports "A Case of Compound Fracture of the Skull followed by Suppuration." Dr. W. B. Thistle reports "A Case of Hystero-epilepsy in a Child of Three," and Dr. J. W. E. Brown presents the notes of a "Case of Aortic Aneurism."

SELECTED FORMULÆ.

Frosted Feet, Etc.

Dr. W. S. Cline sends the following prescription, which he says "is worth its weight in gold" (*Va. Med. Mo.*). It will relieve "frosted feet" as promptly as morphia will pain:

R Carbolic acid..... \mathfrak{ss}
Tinct. iodine..... \mathfrak{ss}
Tannic Acid..... \mathfrak{ss}
Simple ointment..... \mathfrak{ss}

M. Sig. Apply twice a day.

The following ointment is recommended by Prof. Keen in cases of erysipelas:

R Ungt. zinci oxidii..... \mathfrak{ss}
Hydrarg. chlorid. mitis..... \mathfrak{ss}

M. Ft. unguentum. Apply to parts.

Sulphur Iodide in Acne.

[HILLES—*Deut. Med. Woch.*]

ointment.

R Sulphur iodide.....0.6 gm. (10 grs.)
Lanolin.....30.6 gms. (1 oz.)
Apply twice daily, after washing the parts with hot water.

To Remove Wax from the Ear.

Dr. A. P. Brubaker advises:

R Potassi carbonatis..... \mathfrak{ss}
Glycerini..... \mathfrak{ss}
Aque destillat..... \mathfrak{ss}

M. Sig. To be injected into the ear.

For Erysipelas.

Take of:

R Ichthyol.....4 dr.
Lanoline.....4 dr.

Make an ounce ointment, and apply to the affected part, then cover it with salicylic acid gauze.

—*Poplar Med. Monthly.*

Tubercular Abscesses.

Tubercular abscesses are recommended by Billroth to be treated as follows:

R Iodoform..... \mathfrak{ss}
Glycerini..... \mathfrak{ss}

M. Sig. Inject into the abscess cavity after evacuating the pus.

Mucous Patches in the Mouth.

A certain amount of relief may be afforded by the frequent use of a gargle and mouth-wash, as follows (*Med. Bull.*):

R Acidi borici..... \mathfrak{ss}
Glycerini..... \mathfrak{ss}
Tr. myrrh..... \mathfrak{ss}
Aq. rose.....q. s. ad \mathfrak{ss}

M.

Or,

R Sodii biborat..... \mathfrak{ss}
Sodii bicarb..... \mathfrak{ss}
Thymol..... \mathfrak{ss}
Glycerini..... \mathfrak{ss}
Aq. laurocerasi.....q. s. ad \mathfrak{ss}

M.

Local Anæsthesia.

For minor operations the following, used as a spray, is recommended:

- R Mentholi.....part i.
Chloroformi.....part x.
Ætheris fort.....parts xv.
M. Ft. solut.

Dentifrices for Mercurial Stomatitis.

Dr. Leonte (*Spitalul*, No. 23, 1892), recommends as a dentifrice in mercurial stomatitis the following:

- R Powdered salol } aa.....20 gms. (3v.)
Boric acid }
Saccharine } aa.....20 cgms. (grs. iij.)
Menthol }

Brush the teeth twice a day with this mixture upon a soft brush.

Treatment of Croup.

Prof. N. S. Davis says all the indications for treatment in croup, in the mild or superficial form of the disease, can be filled by the administration of:

- R Syr. ipecac.....3ix.
Syr. scillae comp.....3iss.
Tinct. opii camph.....3iij.

M. Sig.—Half teaspoonful every three or four hours
—*Indiana Medical Journal*.

Intestinal Fluxes, etc.

According to Dr. J. Zach Taylor, (*Times and Register*) this dangerous disease, as well as its allied disorders of the bowels, will readily yield to the following formula which, after a trial of over twenty years, he regards as almost a specific.

- R Pulv. Opil.
Pulv. Plumbi Acetat. aa.....gr. xxx.
Camphor gum.
Extract Capsicum Fid.....gtt. x.
Buchwood Creasote.....gtt. v.
Alcohol q. s. to dissolve camphor.
M. Ft. Pil. No. xxx.
Sig. One to six pills daily, according to urgency of case.

Cystitis.

Professor Bangs treats successfully, cases of cystitis, by washing out the bladder with a boro-salicylic solution and injecting twice daily one to three drachms of the following solution.

- R Iodoformi.....3ij.
Glycerini.....
Mucil. Acacie.....} aa. 3fs.
Aque ad.....3viij.

M. Rub up the iodoform with the mucilage, then add glycerine and water.

Sig. Use as above.

Ointment for Barber's Itch.

During the inflammatory stage the following should be applied:

- R Ichthiol.....gr. xx.
Salicylic acid.....gr. x.
Oleate of mercury (10 per cent)...3ij.
Oil of lavender.....mij.
Lanoline.....3vj.

Mix.
This to be kept constantly applied to the affected parts.

—*Chem. and Drug*.

Tonic Laxative.

Dr. Clinton Cushing in his gynecological clinic makes frequent use of the following prescription:

- R Ext. casc. sag.....3j.
Ext. nucis vom.....
Ext. hyoscyam.....aa 3j.
Ol. anisi.....gtt. xv.

M.

Sig. A small teaspoonful at bedtime.

—*Occ. Med. Times*.

For Bronchial Asthma.

- R Potassii iodidi.....3ij.
Tincturae scillae.....3j.
Tincturae stramonii.....3ij.
Extracti glycyrrhizae Liquid.....3ij.
Spiritus etheris.....3j.
Aque.....ad 3viij.

M.

Sig. One tablespoonful in a teaspoonful of water every six hours.

—*Ex.*

For Irritable Cough.

- R Acidi hydrocyanici diluti.....3iss.
Morphinae acetatis.....gr. iss.
Mucilaginis acaciae.....3j.
Syrupi pruni virginianae.....3iv.
Aquam.....ad 3vij.
Miseo et fiat mistura.

A teaspoonful to be sipped every four or six hours.

—*The Practitioner*.

Seborrhea of the Scalp.

Paschkis washes the scalp with an alkaline solution containing soap and bicarbonate of soda. As a lotion he uses:

- R Resorcin.....3i.
Alcohol.....3v.
Castor oil.....3ss.

When the seborrhea has disappeared, he uses friction, with some tonic, such as:

- R Sulphate of quinine.....gr. xv.
Alcohol.....3ij.
Eau de Cologne.....3i.

S. For external use.

—*Semaine Med.*

Pomade for Psoriasis of Scalp.

Beasier gives the following:

- R Potash soap.....
Vaselin.....aa 3v.
Ichthiol.....3ss.
Salicylic ac.....
Pyrogallie acid.....aa gr. xx.

M.

Sig. To be applied every day to the plaques of psoriasis. If much irritation is created, suspend the application temporarily.

—*Ex.*

Dilute Nitrohydrochloric Acid

Is best given along with a little hydrochloric acid, according to Dr. Lockhart Gillespie. In treating that form of headache which Dr. Lauder Brunton has shown to be relieved by the administration of acids—namely, when the pain is frontal and close above the frontal sinuses—the two acids in small quantity, added to a moderate dose of antipyrin or other analgesic, subdue the pain more rapidly than any of these drugs separately.

—*Chem. and Drug*.

CALENDAR OF MEDICAL SOCIETIES.

ASSOCIATION.	PRESIDENT.	SECRETARY.	PLACE AND TIME.
NATIONAL.			
Am. Academy.....	J. E. Emerson, Detroit.....	C. McIntyre, Easton, Pa.....	Milwaukee, June 5, 1893.
Am. Anatomists.....	E. R. Palmer, Louisville.....	J. A. Fordyce, New York.....	Harrogate, Tenn., June 20, '93.
Am. Andrological.....	G. T. Jackson, New York.....	G. H. Fox, New York.....	Milwaukee, Sept. 5, 1893.
Am. Climatological...			
Am. Dermatological...	T. Parvin, Philadelphia.....	H. C. Coe.....	Philadelphia, May 12, 1893.
Am. Gynecological.....			
Am. Health Resort....			
Am. Laryngological...	C. H. Knight, New York.....	M. J. Asch, New York.....	New York, May, 1893.
Am. Medical.....	Hunter McGuire, Richmond..	W. B. Atkinson, Philadelphia	Milwaukee, June 6, 1893.
Am. Medico-Psychol'.	J. Curwin, Warren, Pa.....	H. M. Hurd, Baltimore.....	Chicago.
Am. Neurological.....			
Am. Obstetricians.....	L. S. McMurtry, Louisville...	W. W. Potter, Buffalo.....	Detroit, June 1.
Am. Ophthalmological...	S. B. St. John, Hartford.....	H. Derby, Boston.....	New London, Conn., July 20.
Am. Orthopedic.....	J. J. Steele, Louisville.....	J. Ridlon, Chicago.....	St. Louis, Sept. 19.
Am. Otological.....			
Am. Paediatric.....			
Am. Physiological....	A. L. Loomis, New York.....	H. Hun, Albany.....	Washington, May 30.
Am. Physicians.....			
Am. Public Health...			
Am. Railway Surgeons	C. W. P. Brock, Richmond....	E. R. Lewis, Kansas City....	Omaha, June.
Am. Rhinological.....	E. K. Lewis, Indianapolis...	R. S. Knode, Omaha.....	Indianapolis, October, 1893.
Am. Surgical.....			
Mississippi Valley....	R. S. Sutton, Pittsburg.....	C. A. L. Fitzpatrick.....	Indianapolis, Oct. 12, 1893.
Pan-Am. Congress....	W. Pepper, Philadelphia.....	C. A. L. Reed, Cincinnati....	Washington, Sept. 5, 1893.
STATE.			
Alabama.....	J. T. Searcy, Tuscaloosa.....	T. A. Means, Huntsville.....	Tuscaloosa, April 8.
Arizona.....	J. Miller, Phoenix.....	J. T. Green, Tucson.....	
Arkansas.....	J. T. Jelks, Hot Springs.....	L. P. Gibson, Little Rock....	Little Rock, June 2, 1893.
California.....	W. E. Taylor, San Francisco..	W. W. Kerr, San Francisco..	San Francisco, April 18, 1893.
Colorado.....	W. E. Wilson, Denver.....	H. S. Lobinger, Denver.....	Denver, June 15, 1893.
Connecticut.....	C. B. Newton, Stafford Spr'gs	N. E. Worden, Bridgeport....	Hartford, May 24, 1893.
Dakota, North.....	A. P. Rounsaville, Larimore	D. S. Moore, Jamestown.....	Jamestown, May 25, 1893.
Dakota, South.....	A. L. Peterman, Parker.....	R. C. Warne, Mitchell.....	Huron, June 4, 1893.
Delaware.....	E. W. Cooper, Camden.....	W. C. Pierce, Wilmington...	Rehoboth, June 13, 1893.
Florida.....	S. Stringer, Brookville.....	J. H. Douglass, Jacksonville..	Jacksonville, April 4, 1893.
Georgia.....	A. H. Smith, Hawkinsville...	D. H. Howell, Atlanta.....	Americus, April 21, 1893.
Idaho.....			
Illinois.....	E. F. Ingals, Chicago.....	D. W. Graham, Chicago.....	Chicago, May 16, 1893.
Indiana.....	G. F. Beasley, Lafayette.....	E. S. Elder, Indianapolis.....	Indianapolis, May 9, 1893.
Indian Ty.....	D. Bagley, Vinita.....	H. B. Smith, McAlester.....	Atoka, June 5, 1893.
Iowa.....	C. M. Hobby, Iowa City.....	C. S. Chase, Waterloo.....	Des Moines, May 18.
Kansas.....	F. F. Dickman, Ft. Scott....	G. C. Purdue, Wichita.....	Topeka, May, 1893.
Kentucky.....	A. Dixon, Henderson.....	Steele Bailey, Stanford.....	Frankfort, May 3, 1893.
Louisiana.....	S. E. Archonard, N. Orleans...	P. B. McCutcheon, N. Orles's	New Orleans, May 9, 1893.
Maine.....	A. H. Mitchell, Brunswick...	C. D. Smith, Portland.....	Portland, June 14, 1893.
Maryland.....	L. McLane Tiffany, Balt're...	G. L. Taneyhill, Baltimore...	Baltimore, April 25.
Massachusetts.....	J. C. White, Boston.....	F. W. Goss, Roxbury.....	Boston, June 13, 1893.
Michigan.....	G. V. Chamberlain, Flint.....	C. W. Hitchcock, Detroit....	Muskegon, May 11, 1893.
Minnesota.....	A. W. Abbott, Minneapolis...	C. B. Wetherle, St. Paul.....	Minneapolis, June 21.
Mississippi.....	W. Kriger, Vicksburg.....	H. H. Haralson, Meridian....	Jackson, April 18.
Missouri.....	A. B. Miller, Macon.....	F. R. Fry, St. Louis.....	Sedalia, June 30.
Montana.....	W. Trearoy, Helena.....	Dr. Ellis, Butte.....	Great Falls, April 19.
Nebraska.....	M. L. Hildreth, Lyons.....	G. W. Wilkinson, Omaha....	Nebraska City, May, 1893.
Nevada.....			
New Hampshire.....	M. W. Russell, Concord....	G. P. Conn, Concord.....	Concord, June 20.
New Jersey.....	G. T. Welsh, Passaic.....	W. Pierson, Orange.....	Spring Lake, June, 1893.
New Mexico.....		M. F. Desmaris, Las Vegas...	
N. Y. Association.....	S. W. McLeod, New York.....	E. D. Ferguson, Troy.....	New York, Oct. 19, 1893.
N. Y. Society.....	L. S. Pilcher, Brooklyn.....	F. C. Curtis, Albany.....	February 7, 1893.
North Carolina.....	J. W. McNeill, Fayetteville...	R. B. Jewett, Wilmington...	Wilmington, May 7.
Ohio.....	D. P. Allen, Cleveland.....	T. V. Fitzpatrick, Cincinnati	Put-in-Bay.
Oklahoma.....	C. B. Bradford.....	Loss Walker, Oklah's City...	
Oregon.....	W. E. Rinehart.....	C. H. Wheeler, Portland.....	
Pennsylvania.....	H. L. Orth, Harrisburg.....	W. B. Atkinson, Philadelphia	Williamsport, May 16, 1893.
Rhode Island.....	W. H. Palmer, Providence...	W. R. White, Providence...	Providence, June 2.
South Carolina.....	W. H. Narlen, Anderson.....	W. P. Porcher, Charlestown..	Sumter, April 3, 1893.
Tennessee.....	C. W. Beaumont, Clarksville..	D. E. Nelson, Chatanooga....	Nashville, April 11, 1893.
Texas.....	J. W. Osborne, Cleburne....	H. A. Weston, Galveston....	Galveston, May 2, 1893.
Utah.....			
Vermont.....	J. W. Jenne, St. Louis.....	D. C. Hawley, Burlington....	Montpelier, Oct. 14, 1893.
Virginia.....	H. M. Nash, Norfolk.....	L. B. Edwards, Richmond....	Charlottesville, Oct., 1893.
Washington.....	N. F. Essig, Spokane.....	O. G. Shaver, Tacoma.....	
West Virginia.....	D. P. Morgan, Clarksburg....	D. Mayer, Charlestown.....	Parkersburg, June, 1893.
Wisconsin.....	B. T. Phillips, Menominee...	C. S. Sheldon, Madison.....	Milwaukee, May 3, 1893.
Wyoming.....			